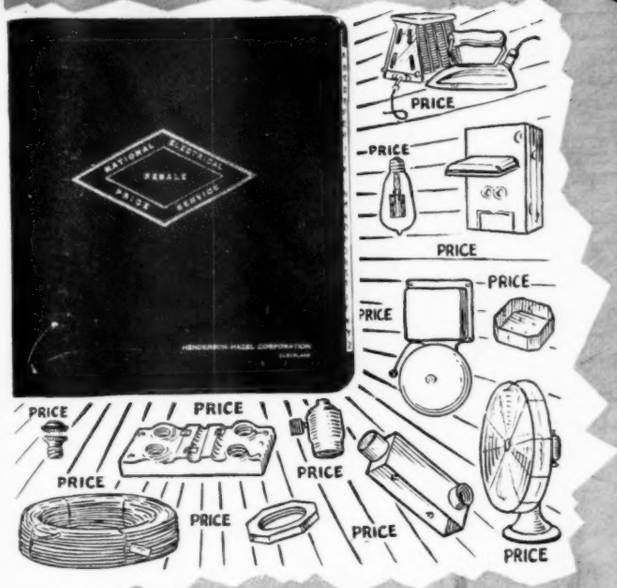
The Electragist

TRADE MARK REG. U.S. PAT. OFFICE

Vol. 25, No. 8 — Association of Electragists INTERNATIONAL — JUNE, 1926

Here it is:

NATIONAL ELECTRICAL RESALE PRICE SERVICE



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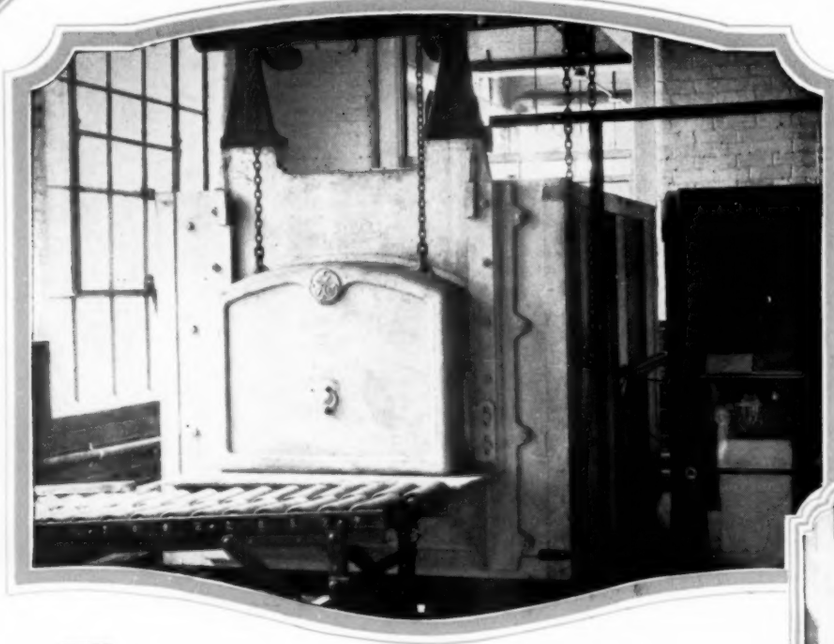

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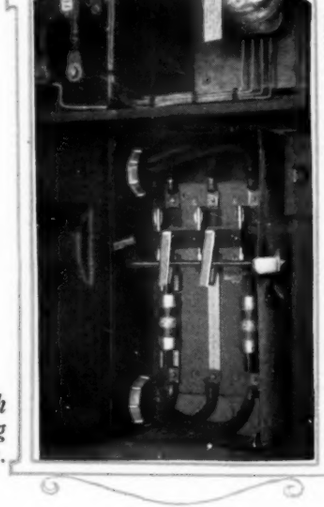
Entrance Switches
Meter Service Switches
Motor Control Switches



Entrance Switch for lighting system.

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TRUMBULL-VANDERPOEL ELECTRIC MFG. CO.
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▽ SAFETY SWITCHES

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The Electragist

(*The National Electrical Contractor and The Electrical Contractor-Dealer*)

Official Journal of the
Association of Electragists—International

Vol. 25 JUNE, 1926 No. 8

What Price Success?

An Explanation of Why "Overhead" Makes Successes of Some Contractors and Failures of Others

By LAURENCE W. DAVIS
General Manager, Association of Electragists, International

THE most important commodity that the electragist sells to his customer is service. Whether the electragist be a large contractor with an extensive staff, a contractor-dealer with a store on an expensive corner or the smallest contractor operating from his house, that service is divided into two distinct parts—the material and labor which the customer needs being one part, and maintenance of an organization ready to supply the customer's needs being the other part.

The cost of the materials and labor (and direct expense) which go into a job or sale is called "the prime cost of the sale." On every job or sale an accurate record of this "prime cost" may be kept or estimated—the amount of materials used or needed, the hours and cost of the labor necessary to install them, and the direct incidental expenses which can be charged to that job, such as inspection fees, carfares, etc. These direct costs of the known items to be charged that job or sale make up, then, the "prime cost of the sale."

All this while other expenses are going on which are not directly related to any particular job or sale. Without these expenses there would be no organization prepared to serve the customer. They are just as essential to the customer as the materials and labor he seeks to buy, for without them he could not be served. And unless he pays his share of these expenses when he purchases the electragist's *service* the business cannot succeed. This expense of doing business is called "overhead."

In order to spread this overhead cost of doing business among all of the customers so that at the end of the year the total will have been covered by all of the sales made in the year, it is necessary to know what percentage must be added to the "prime cost" of each sale for that customer's share. This percentage is found by dividing the total expenses of doing business (overhead) for the year by the total "prime cost" of all sales made that year. That percentage is called the "ratio, or percentage of overhead to prime cost."

Prime Cost

If the prime cost of each job, or estimated cost of each job figured, was marked up by just this percentage throughout the year there would be no profit on the business at the end of the year. For all that was added to the cost of the material and labor by this percentage for overhead would have been paid out for the expenses of running the business. It is necessary therefore to add to this percentage for overhead whatever percentage the business should make for its profit and mark up the prime cost of each sale by such total percentage of overhead and profit. That total mark-up on the prime cost is called the "gross margin" on the sale.

The "gross margin" on a sale is not gross "profit" and should never be called that. For there may be, and frequently is, no profit at all in the gross margin on a sale. There is no profit at all until there has been deducted from the gross margin the amount necessary to pay the expenses of running the business, and if the prime cost of the jobs have been marked up less than the overhead percentage there is a loss and not a profit in that gross margin.

What price, then, is success? It is based upon knowledge of the cost of doing business, ability and determination to apply the facts to all future operations, and salesmanship to sell the customer at a price that includes a gross margin covering the overhead expense and a profit.

The successful business is not based upon volume. Securing a big job or making a sale does not bring success any closer, unless that job or sale has a gross margin which covers the percentage of overhead and a profit. Taking a job for less puts success a little further away, for it ties up that much of the organization in unprofitable work. Letting his competitors take all the jobs they want to at too low prices never puts an electragist out of busi-

ness—but taking jobs himself without sufficient gross margin has put many a contractor out of business.

Find out first of all what your own expense of doing business is—and then determine whether that is efficient and each item sound and in line with good business methods, for the competition of successful business men will not let inefficiency be successful in the end.

There is no single formula for efficiency—no "average" overhead under which all businesses can operate. For "overhead" is the cost of the service you give your customer and is limited only by your ability to make that service worth what it costs to your customer.

Frequently I hear men say, "We cannot get a price that will cover our overhead." There are three courses they can take—find a class of customers who can be sold on the value of service the contractor is giving and who through salesmanship will pay the price; reduce

WHY DID THESE ELECTRAGISTS MAKE PROFITS?

ELECTRAGIST NO.	1	2	3	4	5	6	7	8	9
VOLUME OF BUSINESS	$10,610	$23.406	$26,889	$60.952	$62,067	$72,732	$132,006	$259,948	$425,262
STATE	Mass.	Colo.	Ohio	Ill.	Ala.	Fla.	N. Y.	Cal.	N. Y.
RATIOS OF OVERHEAD, MARK-UP AND PROFITS									
Ratio of Overhead to Net Sales Billed	24.2%	27. %	26.6%	29.2%	22.5%	25.4%	25.3%	23. %	22.9%
Ratio of Overhead to Prime Cost of Sales (Mark-up on Cost necessary to cover Overhead)	35.2%	37.4%	36.4%	41.9%	30.9%	37.2%	36.1%	31.5%	30.6%
Ratio of Gross Margin to Prime Cost (Actual Mark-up on Cost secured)	45.4%	38.1%	41.9%	43.1%	37.2%	46.6%	42.7%	37. %	33.3%
Percentage of Profit Resulting	7. %	0.5%	3.5%	0.8%	4.6%	6.4%	4.6%	4. %	2. %
Percentage of Total Net Income (Including Cash Discounts Earned, etc.)	12. %	0.5%	3.5%	0.8%	8.4%	6.7%	5.7%	4. %	2.9%
ANALYSIS OF OVERHEAD EXPENSE									
Items									
1. Management Salaries	$1,238.01	$2,500.00	$2,080.00	$ 5,750.00	$ 4,992.00	$ 6,683.66	$13,000.00	$16,800.00	$24,999.80
2. Other Salaries		600.00	1,560.00	1,972.72	3,475.13	2,301.56	6,713.00	12,346.34	33,912.45
3. Non-Productive Labor				1,936.83		111.01	632.00		
4. Rent	120.00	1,200.00	1,333.32	765.00	817.20	1,048.00	1,800.00	7,155.00	7,200.00
5. Light-Heat-Power	22.44	168.55	27.71	609.28	280.16	341.75	311.00	1,087.42	2,424.92
6. Stationery & Office Supplies	33.00	21.40	26.37	119.54	436.67	305.98	355.00	1,008.10	2,047.01
7. Traveling & Entertaining		113.00	326.00		223.32	405.66	229.00	2,627.76	
8. Telegraph & Telephone	70.89	56.28	85.10	127.40	224.33	185.80	503.00	597.60	1,450.92
9. Postage	32.00	29.00	37.00	79.13	148.30	83.45	172.00	423.66	
10. Advertising	19.25	101.40	150.10	1,120.43	950.58	703.08	463.00	1,959.02	1,787.05
11. Taxes	33.41	19.85	50.88	256.62	370.22	162.36	25.00	1,179.50	6,775.77
12. Insurance	55.27	47.58	100.26	876.84	346.25	139.61	1,627.00	1,772.70	2,269.77
13. Ass'n Expense	14.25	190.00	165.20	150.00	20.00	21.00	174.00	90.00	552.50
14. Freight & Cartage	169.53	193.28	224.06	585.82		2,050.28	265.00	2,900.25	889.88
15. Interest	67.28	55.50		922.97	69.26	346.83		1,174.85	
16. Automobile	460.16	386.97	425.72	1,395.95	510.21	1,002.72	2,578.00	3,028.23	3,734.74
17. Maintenance & Repair					64.10	763.88			4,281.28
18. Miscellaneous	38.92	240.75	194.16	735.16	450.20	317.13	828.00	547.10	1,399.42
Allowances for:									
19. Loss on Notes & Accounts Receivable	50.00	160.26	50.00		222.07	756.22	1,943.00	923.47	557.24
20. Depreciation—Furniture & Fixt.	110.00	60.00		60.51	52.26	120.00	469.00	335.20	641.51
21. Depreciation—Automobile	54.97	135.00	112.50	316.15	167.43	178.92	1,023.00	1,186.04	915.70
22. Depreciation—Tools		58.00	30.00	21.63	158.37	60.00	312.00	300.00	1,012.08
23. Depreciation—Merchandise			20.00	27.50		379.09		1,543.20	
24. Depreciation—Machinery and Shop Equipment								810.95	731.16
25. Total Overhead Expense	$2,569.38	$6,336.82	$6,998.88	$17,829.48	$13,978.06	$18,467.99	$33,422.00	$59,796.39	$97,583.20
PROFIT AND LOSS STATEMENTS									
26. Sales Billed	$10,635.60	$23,459.24	$26,889.49	$61,004.05	$63,282.22	$73,254.31	$134,578.00	$261,824.85	$427,004.57
27. Returns & Allowances		53.18			1,167.60	427.07	2,219.00	1,876.40	
28. Cash Discounts Allowed	25.37			51.07	46.98	94.88	353.00		1,741.70
29. Total Deductions from Sales	25.37	53.18		51.07	1,214.58	521.95	2,572.00	1,876.40	1,741.70
30. Net Sales Billed	10,610.23	23,406.06	26,889.48	60,952.98	62,067.64	72,732.36	132,006.00	259,948.45	425,262.87
Cost of Sales:									
31. Merchandise	6,058.07	10,997.30	12,461.75	30,324.78	31,879.70	37,898.37	56,123.00	144,185.70	196,401.58
32. Labor	1,238.01	5,942.53	6,483.76	12,135.23	13,266.97	11,218.95	29,017.00	45,587.40	115,154.22
33. Direct Job Expense						485.21	1,470.00		
34. Commissions Paid				138.72	61.32		5,860.00		7,443.58
35. Total Prime Cost of Sales	7,296.08	16,939.83	18,945.51	42,598.73	45,207.99	49,602.53	92,470.00	189,773.10	318,999.38
36. Gross Margin	3,314.15	6,466.23	7,943.97	18,354.25	16,859.65	23,129.83	39,539.00	70,175.35	106,263.49
(25.) Overhead Expense	2,569.38	6,336.82	6,998.88	18,829.48	13,978.06	18,467.99	33,422.00	59,796.39	97,583.20
37. Profit from Operations	744.77	129.41	945.09	524.77	2,881.59	4,661.84	6,114.00	10,378.96	8,680.29
Other Income:									
38. Commissions Rec'd.	20.98				1,965.73	38.31			
39. Cash Disc. Earned	37.88				368.80	193.98	1,378.00		3,170.51
40. Sundry	421.00					18.00	73.00		714.11
41. Rent charged, not taken out	120.00								
42. Total Net Income	$ 1,344.63	$ 129.41	$ 945.09	$ 524.77	$ 5,216.12	$ 4,912.13	$ 7,565.00	$ 10,378.96	$ 12,564.91

the overhead cost to below the gross margin cheap competition will allow; or go out of business.

The first course is open to every business man—and holds the greatest success. Stop trying to be as "cheap" as your competitor and put your salesmanship at work making your service to the customer worth more to him. Study each item of your expense of doing business and see if it is essential and efficient. A dollar wasted on overhead is a dollar lost out of the business.

What constitutes overhead expenses? First, management salary—payment for the man who runs the business. The fact that the manager and the owner of a business are the same man does not change this first item—the business must pay the proper salary for its manager before the business has made a profit for the owner. I have heard a contractor say, "I get my compensation out of the profits of the business." Sup-

AND THESE ELECTRAGISTS SHOW LOSSES?

ELECTRAGIST NO.	10	11	12	13	14	15	16	17	18
VOLUME OF BUSINESS	$39,083	$40,252	$42,607	$49,176	$78,305	$83,503	$90,032	$152,575	$225,308
STATE	Okla.	Pa.	Minn.	Wis.	Cal.	Tenn.	Pa.	N. Y.	N. Y.
RATIOS OF OVERHEAD, MARK-UP AND RESULTS									
Ratio of Overhead to Net Sales Billed	35.4%	30.3%	31.0%	42.1%	31.0%	25.6%	26.2%	23.3%	20.1%
Ratio of Overhead to Prime Cost of Sales (Mark-up on Cost necessary to cover Overhead)	56.8%	40.7%	42.1%	58.8%	44.0%	31.3%	31.1%	30.3%	24.9%
Ratio of Gross Margin to Prime Cost (Actual Mark-up on Cost secured)	54.7%	34.8%	40.3%	40.1%	42.2%	22.0%	19.0%	30.0%	23.6%
Percentage of Loss Resulting	— 1.4%	— 4.5%	— 2.2%	—13.4%	—13.0%	— 7.6%	—10.3%	—0.24%	— 1.0%
Percentage of Net Loss (After crediting Other Income)	— 0.5%	— 2.4%	— 2.2%	—12.0%	—13.0%	— 7.0%	— 6.2%	+0.54%	+ 1.4%
ANALYSIS OF OVERHEAD EXPENSE									
Items									
1. Management Salaries	$ 2,400.00	$ 2,000.00	$ 6,900.00	$12,085.39	$ 3,966.26	$ 6,608.60	$ 5,770.00	$18,150.00	$21,045.00
2. Other Salaries	3,802.04	3,325.00	1,200.00	1,315.36	6,405.61	2,582.18	7,234.00	4,067.48	14,205.00
3. Non-Productive Labor	114.89		53.38	888.00			1,772.33	1,431.00	
4. Rent	1,564.00	2,400.00	1,800.00	850.00	2,295.00	2,100.00	3,040.00	2,520.00	
5. Light-Heat-Power	700.58	382.50	311.57	370.75	614.19	566.12	732.24	273.62	243.71
6. Stationery & Office Supplies	148.16	88.35	150.00	55.28	374.83	660.06	226.20	263.31	598.04
7. Traveling & Entertaining	217.35	50.00	35.00	113.43		1,515.65	481.15		573.00
8. Telegraph and Telephone	204.79	70.00	161.53	126.00	607.05	377.65	410.26	249.57	611.26
9. Postage	167.03	100.00	100.00	60.11	357.64	161.84	230.42	182.36	318.30
10. Advertising	1,215.89	314.34	926.22	431.92	641.46	1,040.73	267.75	519.50	400.00
11. Taxes	183.19	271.28	105.70	296.59	180.04	273.91	172.88		2,955.49
12. Insurance	331.29	208.88	748.88	383.66	615.81	665.59	934.30	1,839.53	1,380.36
13. Ass'n Expense	20.00	50.50	20.00	267.94	274.00	35.00	511.61	532.62	845.00
14. Warehouse Upkeep				944.25		611.85			
15. Interest	331.15	1,117.81	139.75	103.72			301.28	1,065.67	
16. Automobile	1,225.40	287.27		1,090.96	2,294.47	2,170.16	763.14	1,575.90	
17. Maintenance & Repair	49.31		250.00	56.25			62.75	224.38	
18. Miscellaneous	203.38	874.82	282.30	376.39	2,461.10	653.17	269.31	790.18	2,145.76
Allowances for:									
19. Loss on Notes & Accounts Receivable	224.55	345.40	?	300.00	2,236.99	332.80		927.38	?
20. Depreciation—Furniture & Fixt.	335.23	165.69	?	28.80	210.00	188.52	107.45	260.00	?
21. Depreciation—Automobile	525.27	109.00	?	393.12	720.00	779.51	227.90	500.00	?
22. Depreciation—Tools		19.56	?	134.63		83.90	49.50	240.00	?
23. Depreciation—Merchandise	397.80								
24. Total Overhead Expense	$14,361.30	$12,180.40	$13,184.33	$20,672.55	$24,254.45	$21,407.24	$23,564.47	$35,613.10	$45,320.92
PROFIT AND LOSS STATEMENT									
25. Sales Billed	$39,083.51	$43,082.41	$42,607.23	$49,236.52	$78,305.14	$84,047.77	$93,303.07	$155,702.19	$226,296.13
26. Returns & Allowances		2,786.91					3,081.39	2,625.95	561.06
27. Cash Discounts Allowed		42.77		60.33		544.70	189.45	500.75	326.08
28. Total Deductions from Sales		2,829.68					3,270.84	3,126.70	987.14
29. Net Sales Billed	$39,083.51	40,252.73	42,607.23	49,176.19	78,305.14	83,503.07	90,032.23	152,575.49	225.308.99
Cost of Sales:									
30. Merchandise	22,649.67	26,491.35	25,170.42	24,196.58	47,287.78	48,776.22	46,692.15	75,199.92	100,879.39
31. Labor	2,619.94	2,265.33	5,204.20	9,883.37	7,782.28	19,675.26	28,054.46	42,111.21	77,037.56
32. Direct Job Expense		401.83		982.52			931.48		4,360.73
33. Commissions Paid		734.33		26.25				15.00	
34. Total Prime Cost of Sales	25,269.61	29,892.84	30,374.62	35,088.72	55,070.06	68,451.48	75,678.09	117,326.13	182,277.68
35. Gross Margin	13,813.90	10,359.89	12,232.61	14,087.47	23,235.08	15,051.59	14,354.14	35,249.36	43,031.31
(24.) Overhead Expense	14,361.30	12,180.40	13,184.33	20,672.55	24,254.45	21,407.24	23,564.47	35,613.10	45,320.92
36. Loss from Operations	—547.40	—1,820.51	—951.72	—6,585.08	—1,019.37	—6,355.65	—9,210.33	—363.74	—2,289.61
Other Income:									
37. Commissions Rec'd.	15.62							92.00	
38. Cash Disc. Earned	146.72			699.22		481.08	952.88	1,026.92	2,706.19
39. Sundry	173.14	865.00					2,687.85	70.67	2,833.21
40. Net Loss	$—211.92	$—955.51	$—951.72	$—5,886.83	$—1,019.37	$—5,874.57	$—5,569.60	$+825.85	$+3,249.79

pose he was disabled tomorrow, would the business be prepared to employ a manager and show any profits to him as the owner?

How much should be allowed as salary for management? No definite amount can be fixed, but it is wise to limit the total paid for management, office salaries, clerks and all "overhead" salaries to less than 15 percent of the total net sales of the business. As a rule this will make the "management salaries" less than 10 percent of total sales and "other salaries" about 4 percent to 5 percent of total sales.

Non-productive labor is the item which covers the lost time of workmen (journeymen and helpers) when their time cannot be charged against a particular job. Waiting to be sent out on a job, odd time in the shop, sweeping out the store or unloading material into the storeroom, making small repairs or correcting work for which no charge can be made—all of this time of your men you are paying for. Fifteen minutes of a $1 an hour man costs you 25 cents—how many hours of such time is wasted in a year? Unless it is recorded and put into overhead it comes out of profits and is lost from your pocket. First, cut down waste time to a minimum; second, see that the remaining "non-productive" time is recorded in your overhead.

Rent Charges

Rent—again no fixed percentage can be named, since it will largely depend upon the class of business you are doing. The contractor-dealer with a store must be in a shopping district; the contractor specializing on large work may have only an office; the motor repair shop requires a location where ample space may be had at low rental; the small housewiring contractor may work from his home. Remember that your place of business is your plant and that this plant must operate near capacity to be efficient—if not, then your rent is too high. In the case of the small contractor working from his home, he should charge something to his overhead for his business occupancy, even though he does not actually take the rent out; in this way the business pays for that rent and makes possible his operating outside of his home in time.

Light, heat and power; stationery and office supplies; postage; telephone and telegraph; traveling and entertaining; advertising; taxes; insurance; operation of automobiles; interest on borrowed money; association dues; freight and cartage; maintenance and repairs on shop and equipment, and other definite miscellaneous expenses can all be recorded and are a part of every electragist's business.

Unless every item is recorded in the overhead these expenses come out of the electragists' pocket; if they are properly included each customer pays his fair share of them.

There are other expenses which must be taken care of—allowances for the unseen losses going on in business all the time. It is as certain as death that not all accounts are good or can be collected in full—experience shows that an allowance of 1 percent of the average accounts and notes receivable should be included in the overhead if the business is to share this unavoidable risk with its customers.

All of the equipment is depreciating in value each year. Furniture, showcases, typewriters and adding machine, fixtures, etc., should have 10 percent to 20 percent allowed from their cost each year to replace them when they are gone; automobiles 30 percent to 50 percent for depreciation each year; tools are lost, worn out and must be replaced and only by making an allowance for these in the overhead will the business provide for their replacement. Materials and merchandise purchased for sale also depreciate before they can be sold—become obsolete, shopworn, broken, odds and ends must be thrown away, many items are lost or disappear. All of this loss is an inevitable part of the expense of doing business and serving your customers, and the same kind of money from your pocket pays for it that pays for the materials put into the jobs. An allowance for this must be put into the overhead if it is shared by the customers and the business reimbursed for its cost of service.

Knowing Costs

Overhead is not an imaginary, theoretical thing. It is the record of your money paid out to create a business ready to serve your customers at all times and providing a means of fairly charging each customer for his share of the cost. "Doctoring" the record will not fool the profit-and-loss statement of your money in the bank at the end of the year.

Success depends upon knowing your costs and then establishing your selling policy on those facts. Profits do not come from some mysterious alchemy which turns a price below cost into gold. Profits only come from salesmanship that finds a market at prices above the cost of doing business—and turns its back upon the jobs offered below that price.

Study the tables shown herewith, compare the "ratio of overhead to prime cost" with the "ratio of gross margin" in each business, and you will find the answer to "What Price Success?"

BOOK REVIEW

Electrical Machinery Erection

By Terrell Croft, 314 pages, price $3. Published by McGraw-Hill Book Co., New York.

The erection of electrical machinery is taken up in a logical manner under four divisions, while a fifth discusses maintenance.

Methods of unloading and moving motors, generators and large transformers are discussed in the first division. This is followed by details of methods for mounting motors on floors, walls, ceilings, wall and ceiling platforms and on machinery frames under the heading of "Supports." Convenient data is provided on holding strength and safe loads for lag screws and expansion bolts, and safe loads for beams of wood and structural steel shapes.

The division entitled "Erecting" described methods of placing the machines in position on their supports after the supports have been prepared, including handling ordinary motors, large machines shipped disassembled, and large transformers; pressing rotors onto shafts, adjusting brush holders, etc.

"Locating" and "Fixing" are defined as the operations of accurately placing and aligning a machine and securing it in position. The approved tools and appliances for this work and the methods of using them are detailed.

In the final division the organization and routine of maintenance work are discussed and practical maintenance methods are described. Considerable space is given here to the inspection, maintenance and repair of bearings.

The book is well illustrated throughout with line drawings. It appears to cover the subject quite thoroughly and is very practical.

How California Electrical Dealers Are Educating Themselves

Southern California Electragists Through Their Merchandising Institute Discuss Problems of Electrical Retailing and Adjust Relations between Their Field and Other Branches of the Industry

By O. N. ROBERTSON

Chairman, Merchandising Section, California Electragists, Southern Division

IN SOUTHERN CALIFORNIA the Electragist dealer of himself is becoming a greater asset to the electrical industry. A review of his activities will be interesting and helpful to the industry.

In March, 1925, the Southern California Section of the California Electragists was organized. Among the various committees appointed following this organization was the committee on merchandising. In the past it was found that, with few exceptions, the dealer department of the contractor-dealer business was at best a losing proposition, and that all of the income from a contractor-dealer business was in the contracting line. With this in mind, at the first convention which was held in San Diego June, 1925, a meeting on merchandising was held. This brought out some very interesting information which led those in charge of the work to the conclusion that a vast amount of education was necessary to bring the dealer branch of the business up to a paying basis. At the next convention, held in Le Bec in October, a merchandising committee was appointed and designated officially as the "Merchandising Section of the California Electragists." This committee consisted of A. M. Fitch, Harrison-Fitch Company; C. A. Rowley, The McNally Company; E. F. Gielow, Anaheim Electric Company; D. D. McFarlane, Newberry Electric Corporation; O. N. Robertson, chairman, Robertson Electric Corporation.

Following the convention this committee had many meetings, learning in a definite way the problems that confront the dealer in the distribution of electrical merchandise.

The first took the form of talks on the most important things about a dealer's business. At the Catalina convention, held January 21, 22 and 23, informative talks by leaders, on the topics of electric refrigeration, store selling, particularly of small appliances, window decorating and store arrangement and advertising, were enthusiastically received by an audience comprising jobbers, central station men, manufacturers and contractor-dealers, numbering about 150. The work of the committee to date was so enthusiastically received that new plans were made for betterment of the industry and the distribution of merchandise.

THE only way to solve a problem is first to find out exactly what are its elements and then sit down to a session of good, hard work. This is what the Electragists in Southern California have done in regard to the electrical retailing puzzle. First they organized a Merchandising Institute, similar to the Estimators' Section which various local bodies have set up, and then this Merchandising Institute held a series of meetings for contractor-dealers. The procedure of the Institute, the subjects discussed at the meetings, the results obtained and the plans of the Institute for the future are outlined in the accompanying article.—The Editor.

Because of the fact that comparatively few of the dealers were in attendance at these conventions, the idea was conceived to carry on what had been started at conventions by means of merchandising institutes held in various centrally located districts. These were designed to give a slice of the convention to all of the dealers in a more concrete form in their own locality. These meetings, a total of seven, were held in the evenings, dinner being served first, to which dealers and their salesmen, central station appliance salesmen and district managers and their families were invited. The program for each meeting was taken up largely with a sales talk by Ray Turnbull of the Edison Electric Appliance Company, using for demonstration a range. C. E. Louis of the Electric Corporation gave an illustrated talk on window display, window lighting and store arrangement.

These meetings proved so beneficial that in every district instances of remodeled show windows with proper illumination, and in many cases remodeled and rearranged stores showed that the work had a very lasting impression on those present. At all of these meetings the plan of the Red Seal was presented by W. F. Brainerd of the California Electrical Bureau. As a result of these meetings one electragist sold a seven-story apartment house complete Red Seal installation, including ranges. The first institute had a total attendance of 350 and was so successful that it was found necessary to continue the sessions. The next one is being arranged to begin May 24 and running through to about June 4. The same course is to be given. The second round of the Merchandising Institute will have as a feature of the program an illustrated sales talk on the way to really sell small appliances at a profit by B. A. Graham of the Chicago Flexible Shaft Company. R. E. (Dick) Smith of the Southern California Edison Company, whose talk on advertising at Catalina was so well received, will try to help the dealer solve his problem of efficiently advertising electrical merchandise by an illustrated talk. These meetings are expected to draw even larger crowds than the first Merchandising Institute.

This gives an outline of what has been done by the Merchandising Committee. However, there are many things

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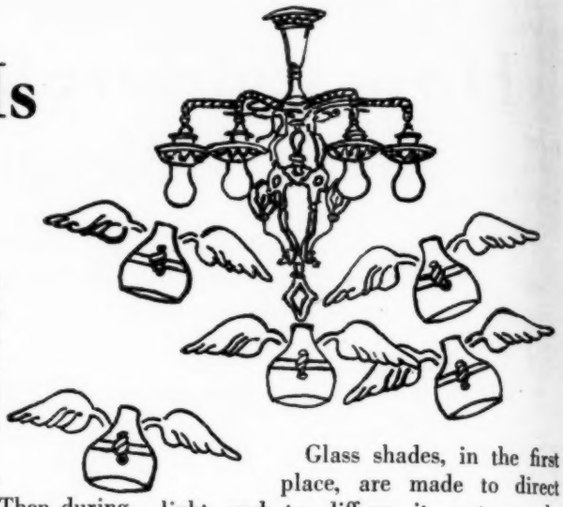
Lighting Glassware Is Coming Back



ED SMITH, who runs a contractor-dealer-fixture business in a suburb of New York, interrupted his talk with the interviewer to greet a woman customer. She was remodeling a home and wanted a new deal in fixtures all the way through. Ed sold her the fixtures —good ones, too—and then she said:

"How about shades?"

"Well, ma'am," Ed told her, "I've got glass I can sell you, but it will be"—naming a fairly large amount "—extra."

The woman looked at the glass Ed brought out, but she didn't buy it. In the first place she was antagonized by the "extra" and in the second place the glass that Ed showed her was out-of-

Showing How Glass Can Be Used on the Candle Type of Fixture

date, didn't suit the fixture, would have been an eyesore in any home. And furthermore Ed didn't seem very enthusiastic about glass himself. Anyway the sale of shades was lost to him and a profit he should have had went to the department store.

How much money is this Ed Smith and every other Ed Smith in the fixture business losing each month because he only sells fixtures and not satisfactory illumination? Nobody knows, but whatever the amount is, it's too much. From now on there's going to be a real market for lighting glassware in the home and the contractor who doesn't take advantage of the opportunity is going to miss a large share of profit that is legitimately his. That customer of Ed Smith's bought expensive fixtures and she would have bought expensive glass if Ed had had any and hadn't tried to tack it on as an extra.

Fixtures and glassware used to be sold together. Then during the war—for reasons that make another story—lighting glassware dropped out of the market. The fixtures weren't designed for it and weren't shown with shades. The balltype outside frosted lamp was developed and its use provided a makeshift for shading. So the fact that dealers haven't sold and aren't now selling much glass isn't entirely their fault. But it will be their fault and their loss if they don't sell it from now on.

One of the main reasons why glassware is due for a return is the development of the new line of inside-frosted lamps. They are considerably brighter than the other type and present a "glare" problem when they are left unshaded. For this reason the manufacturers are advertising to the public that the new lamp should be shaded and are making it in a shape that permits shades to be used with it. By the time this advertising has been going for awhile every customer for a lighting fixture is also going to be a predisposed prospect for shades. The public accepted unshaded fixtures because they were a novelty and because they were the only type shown for several years. The story of shaded light will be just as easy to put over. Within a few years it will seem as strange to put in unshaded illumination as it would be for a plumber to put in all the piping and leave off the faucets.

Now, there are available three kinds of shades—silk, parchment and glass, all of them having their place. What sort a customer buys depends a good deal on the individual choice and taste of the customer, but glass has certain advantages, for both user and dealer, that neither of the other types has.

Glass shades, in the first place, are made to direct light and to diffuse it, not merely to keep glare from the eye. Take for instance the case of brackets on a wall of dark color. A parchment screen keeps the direct glare from the eye but so much light is absorbed by the wall that the result is usually ineffective illumination. A silk candle shade directs the light up and down, diffuses it some but absorbs a great deal. A glass shade of the proper style and color, directs

Showing How Glass Can Be Used on the Shower Type Bracket

the light up and down, against the wall and directly into the room without, however, permitting any of the glare to come through.

It's a significant fact that light in the finest stores has always been shaded. These stores plan every effect for its psychological reaction on customers. They want enough light to permit the close examination of goods, they want that light to be softened so that customers will be comfortable in it and they want the shading to have a decorative effect. And these stores have used glassware even when the unshaded type of fixture was most popular.

Some of This Year's Designs in Lighting Glassware, Indicating How Far the Manufacturers Have Progressed in Combining Shading of Light and Artistic Decorative Effects

In addition to the illumination value of glassware, it has unusual qualities of permanence and cleanliness. Glass retains its form and its original color indefinitely, or as long as it isn't dropped on the floor, and not many shades come to that end. Certainly a set of glass shades will last as long as the fixture, which according to the merchandising program of the fixture industry ought to be replaced about every five years.

Of particular interest to the dealer is that his stock of glassware never deteriorates. He never has to have sales of shopworn glass shades, even though some particular items of this stock stay on his shelves for six months or a year.

One of the reasons why houseowners and interior decorators have, in the past, turned away from glass has been its lack of decorative value. Some of the "horrible examples" of fifteen years ago are shown in the illustration below and if they were the best the glassware industry had to offer, no wonder the public turned to the other types of shades for their decorative effects.

This situation has been considerably changed in the last few years. The glass manufacturers not only have made their shades lighter and more graceful but have given them a beauty that compares with silk or parchment and where color is concerned, have outdone the makers of the other kind of shades.

New Packing System

The new system of packing glass is something else to the advantage of the dealer who wants to get in on this market. It used to be necessary to buy glass by the barrel and put up with the bother of straw packing, breakage, large stocks and reduced turnover, the latter because it was necessary to buy in quantity to get attractive prices. Glass shades are now packed in cartons, like lamps, with twelve to the carton. And for less than a hundred dollars a dealer can have a large enough assortment of shades to satisfy the tastes of the average customer.

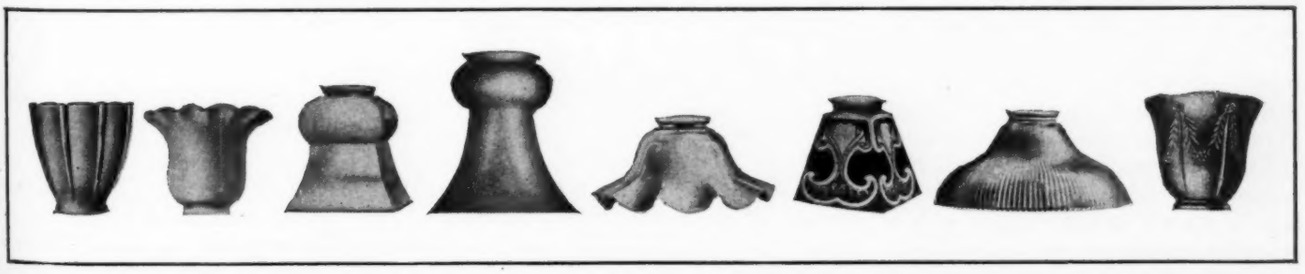
Now, supposing a dealer does decide to try selling glassware, how is he going to go about it? A large part of the public thinks that glass shades aren't fashionable. The publicity of the manufacturers is going to counteract this attitude in time but the dealer can help a lot. The first way is to carry glass. The second way is to show all fixtures in the display room with shades. If a customer doesn't see the fixture with shades on it, he is going to consider the shades a rather unnecessary accessory; whereas if he sees only shaded fixtures he automatically accepts it as being incomplete without shades, just as an automobile would be incomplete without a top. Another good way is to borrow the plan of the factory lighting schools. Demonstrate the differences between shaded and unshaded light. Anyone can grasp that, while talk about glare is apt to confuse some laymen.

But the most important means of selling shaded light, according to the merchandising counselor of one of the large lamp companies, is to price the fixture and shade complete. Harking back to Ed Smith, he would have added nearly a third to the amount of his sale if he had shown that woman customer a shaded fixture in the first place and said:

"This fixture is so-and-so much."

The woman was ready and willing to buy fixtures and it wasn't until Ed told her glass was an accessory, that she considered it so.

(Continued on Page 23)



A Few of the "Horrible Examples" of the Glassware Made Fifteen and Twenty Years Ago—No Wonder the Public Turned From These Styles to Other Kinds of Shading and Even to Unshaded Light

How to Lay Out Power Wiring According to New Code

By ROBERT A. GOELLER
Vice-President, Hatzel & Buehler, Inc., New York

In order to bring out more comprehensively the various regulations of the 1925 Code pertaining to the protection of motors and motor circuits, there follows a series of diagrams each accompanied by a detailed explanation. A study of them will enable the contractor with the motor wiring job not only to understand more thoroughly the various Code rules as applied thereto, but to select the most economical permissible type of system for various conditions of service.—EDITOR.

THERE are basically two types of motor wiring systems. The first consists of a common feeder designed to supply a given area and which is tapped into at various points and power panels connected thereto, or as a modification to this, each power panel may be supplied by an individual feeder from a central distribution point. These local power panels whether supplied from a common or individual feeder, would be provided with a number of branch circuit protective devices, such as fuses, fused switches or circuit breakers. These panels may appropriately be termed Branch Circuit Power Panels.

The problems surrounding this type of system insofar as the Code requirements are concerned, are quite simple and motors having a large range in size and a great diversity of control and protective apparatus may be connected to such panels with little complication.

The other type of system is based on a common feeder serving a number of motors and each motor tapped off this feeder individually at convenient points along its path. This type of installation works out very well from a Code point of view and also from a construction angle particularly where the motors are of large size and spaced at considerable distances apart. For small motors closely grouped and which are usually started at full voltage, such a system requires some study to meet with Code regulations and to avoid unnecessary duplication of fuses.

A combination of both systems may also be made whereby branch circuit power panels are tapped off at desired locations along a common power feeder to serve a number of motors that may be closely grouped and at other points for single motors which are perhaps isolated by themselves and are therefore connected onto the power feeder individually. Knowledge of the Code rules permits one to make many such combinations and at times makes possible considerable economies.

As the following diagrams have been constructed to bring out the Code requirements, no attempt has been made to recommend any type of motor wiring system or control and protective apparatus. It is hoped that enough information is set forth to permit the proper selection of the right kind of circuits, control and protective devices to meet the great variety of conditions in the motor field once the function and operating characteristics of motor load is established.

Diagram No. 1

Diagram No. 1 shows a motor started at full voltage by means of a single throw switch and protected by the same set of fuses during both starting and running periods. This arrangement is limited to motors of small size because section 809-A qualifies section 809-B sub par. 1 to the extent that motors of 2HP or less may be protected by fuses exceeding 125 per cent of the nameplate rating of the motors and shall be considered as being sufficiently protected by the automatic overload protective devices used to protect the conductors of the motor circuits as provided in section 808-A. Thus, let us assume that a small motor has a running current as indicated by its nameplate of 3 amp. Naturally while section 808-A requires the conductors supplying this motor to be at least 110 per cent of nameplate current rating or 3.3 amps., the nearest sized conductor that could be selected would be No. 14, which under column A of table 1, section 610 has an ampere capacity of 15 amperes. Therefore, following the requirements set forth in section 809-A, this conductor if protected by a 15-amp. fuse as permitted in section 610, would be five times larger than the normal running current of the motor under consideration. From this, it will be readily seen that starting currents would have to be extremely excessive to blow the maximum size fuse that would be permitted.

It is not to be implied that it is always best to select the largest size fuses permissible, but rather it is recommended that fuses of 200 to 300 per cent of the motor nameplate rating be used so as to give the motor a somewhat greater margin of protection in this type of installation.

As noted in Diagram No. 1, if fuses are provided in branch circuit power panel, fuses at motor switch are optional, but should the power panel not be in sight of the motor and it be desired for reasons of safety to have the fuses and switch together these fuses might be 300 percent of motor current as given in the preceding paragraph or 9 amps., or nearest fuse size, 10 amps., while the fuses in the branch circuit power panel could be 15 amps. or the full capacity of the No. 14 branch circuit conductor, thus giving a second step in the protective system that would always give adequate protection to the motor circuit conductors and also to the motor itself as a last resort should the fuses at the motor fail to function properly.

It is evident with motors of 2HP or less that their current consumed when operating at even 110 volts give a large margin of reserve to the ampere capacity of the nearest size of conductor available under the Code and that only the

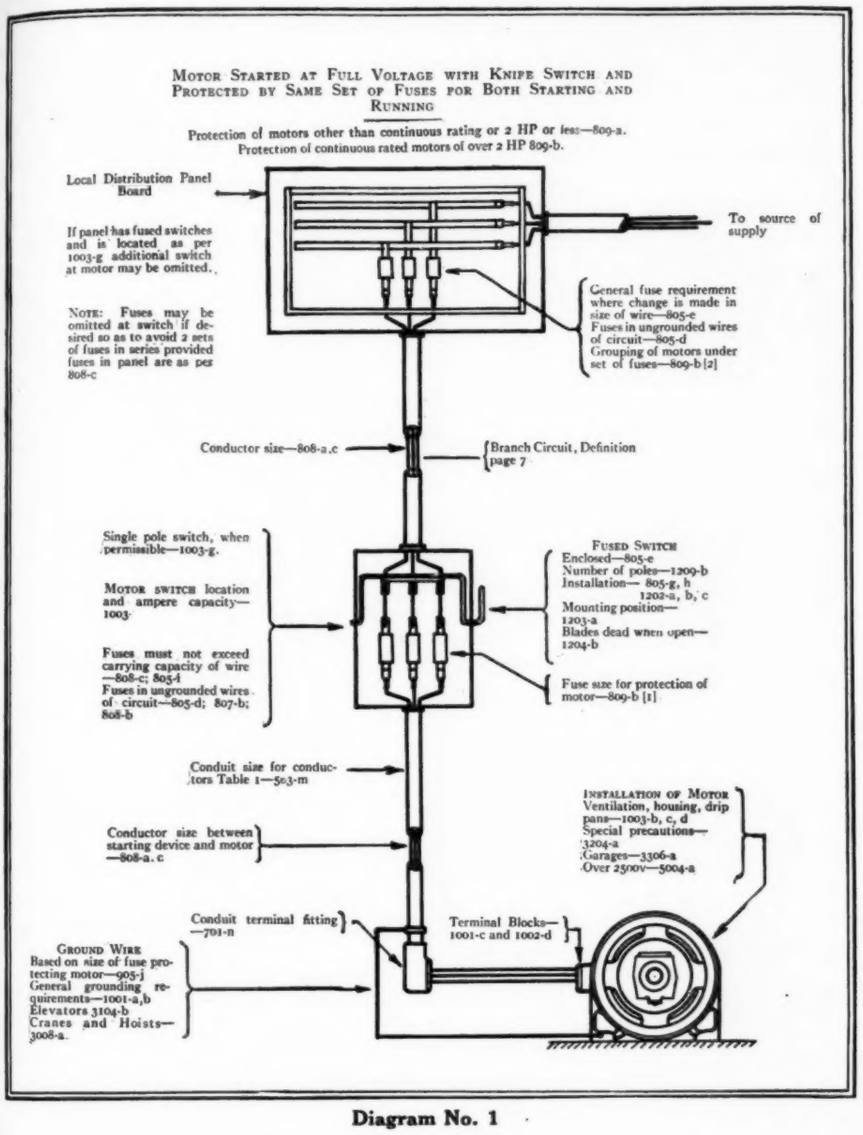

Motor Started at Full Voltage with Knife Switch and Protected by Same Set of Fuses for Both Starting and Running
Protection of motors other than continuous rating or 2 HP or less—809-a.
Protection of continuous rated motors of over 2 HP 809-b.
Local Distribution Panel Board
If panel has fused switches and is located as per 1003-g additional switch at motor may be omitted.
Note: Fuses may be omitted at switch if desired so as to avoid 2 sets of fuses in series provided fuses in panel are as per 808-c
To source of supply
General fuse requirement where change is made in size of wire—805-e
Fuses in ungrounded wires of circuit—805-d
Grouping of motors under set of fuses—809-b [2]
Conductor size—808-a,c
Branch Circuit, Definition page 7
Single pole switch, when permissible—1003-g.
Motor switch location and ampere capacity—1003-
Fuses must not exceed carrying capacity of wire—808-c; 805-f
Fuses in ungrounded wires of circuit—805-d; 807-b; 808-b
Fused Switch
Enclosed—805-e
Number of poles—1209-b
Installation— 805-g, h 1202-a, b, c
Mounting position—1203-a
Blades dead when open—1204-b
Fuse size for protection of motor—809-b [1]
Conduit size for conductors Table 1—503-m
Conductor size between starting device and motor—808-a, c
Installation of Motor
Ventilation, housing, drip pans—1003-b, c, d
Special precautions—3204-a
Garages—3306-a
Over 2500v—5004-a
Conduit terminal fitting—701-n
Terminal Blocks—1001-c and 1002-d
Ground Wire
Based on size of fuse protecting motor—905-j
General grounding requirements—1001-a,b
Elevators 3104-b
Cranes and Hoists—3008-a.

Diagram No. 1

motor might be somewhat overfused, which however, is not considered a great hazard.

Following the above line of reasoning it is logical that several small motors connected to the same circuit might be protected by a single set of fuses not exceeding 15 amp. or that several small motors and other consuming devices might be grouped on the same circuit where such combined load does not exceed 15 amps. Section 809-B, sub par. 2 recognizes this fact and permits of such grouping outlined above.

In grouping small motors under a single set of 15 amp. fuses the following rule has been found to work out most satisfactory: The sum of the running currents of all the motors except the largest, plus the starting current of this one (250 per cent of its normal full load) must not exceed 15 amps.

EXAMPLE

	Amps.
3 motors, running current 2 amps. each=	6
1 motor, running current 3.5 amps.x250% for starting=	8.75
Total	14.75

This is a personal recommendation only which from experience, usually prevents overfusing of the conductor at some later date, due to fuses continually blowing through lack of some reserve capacity to take care of starting currents, even though it is agreed that fuses themselves have considerable time lag to absorb such momentary peak currents.

From all of the foregoing, it is quite evident that the same fuses may be used to protect small motors and motor conductors for the starting and running periods successfully and, if the other diagrams are studied, why such an arrangement is not applicable to motors above 2 HP.

Diagram No. 2

Diagram No. 2 indicates a motor started at full voltage by means of a double throw switch so arranged that the running fuses are shunted during starting by throwing the switch in the starting position until the motor is up to speed and then quickly throwing it into running position before the motor loses any appreciable momentum and thus connecting it to the line through the running fuses. This type of motor control and protection has its greatest range of practical usefulness from above 2 HP and up to 10 HP. The general range, however, is between 2 and 7½ HP. When motor larger than 2 HP. is thrown directly across line at full voltage takes currents of such magnitude when compared to the normal running currents, that if the motor were started with running fuses in circuit, and such fuses were set for 125 per cent of the nameplate current rating of the motor for running protection as required in Section 809-b, sub par. 1, they would probably blow each time the motor was started. It is evident, therefore, that some means be provided to shunt the running fuses during the starting period and that the current setting of the automatic overload protective device next back on the line afford some measure of protection to the motor and its branch circuit conductors during the starting period, thus preventing serious injury in case of stalled or heavily overloaded motors.

Section 809-F, provides for this condition by limiting such automatic overload protective devices to 500 per cent of the nameplate current rating of the motor.

Due to the fact that the fuses used for the protection of the motor during the starting period also continuously protect the conductors between them and the starting device, it is obvious that as these fuses may be up to 500 per cent of the nameplate current rating of the motor, the conductors must be of such a size as not to be overfused by the starting fuses. In the example that follows, the fuses are rated at 300 percent of

running current are used because this is about the ordinary difference between starting and running currents of motors using this type of starting switch. The conductors are rubber covered.

To thoroughly understand the examples set forth in the following it must be first understood that the Code recognizes the practical condition surrounding starting currents and gives consideration to the fact that normally their peaks are of short duration and that to require conductors of a size based on either rubber covered or varnished cambric insulation for these short peak loads, would tend to unnecessarily raise the cost of installation. Therefore, to permit the use of a fuse that will not continually blow during the starting period and at the same time keep the conductor size down, section 808-E, permits the fuse to be a maximum of 500 per cent of the nameplate current rating of the motor, while section 808-C permits this conductor to be selected on the basis of the conductor capacities as given in column C of table No. 1 of section 610, due to the fact that temperature rise is a negligible factor on account of the short periods of the starting currents.

Example No. 1

Case 1.

Nameplate of current rating of motor 10 amps. x 300% = 30 amps.

Section 610, table No. 1, column C, 30 amps. require No. 10 wire.

Now, if section 808-C did not permit of this arrangement, the conductors would have to be as follows:

Case 2.

Nameplate current rating of motor 10 amps. x 300% = 30 amps.

Section 610, table No. 1, column A, 30 amps. require No. 8 wire. (This is the nearest size for this capacity).

Thus, the size of the conductors between the fuse in the Branch Circuit Power Panel and the starting device in Case 1, would be No. 10, while in Case 2, No. 8 would be required. If a fuse rated above 300 per cent, but not exceeding 500 percent was used, the wire size would have to be calculated accordingly, although it is often possible to use a fuse larger than 300 per cent due to the fact that the nearest conductor size selected on the basis of 300 per cent often leaves a margin and permits a larger fuse size without overfusing the conductor.

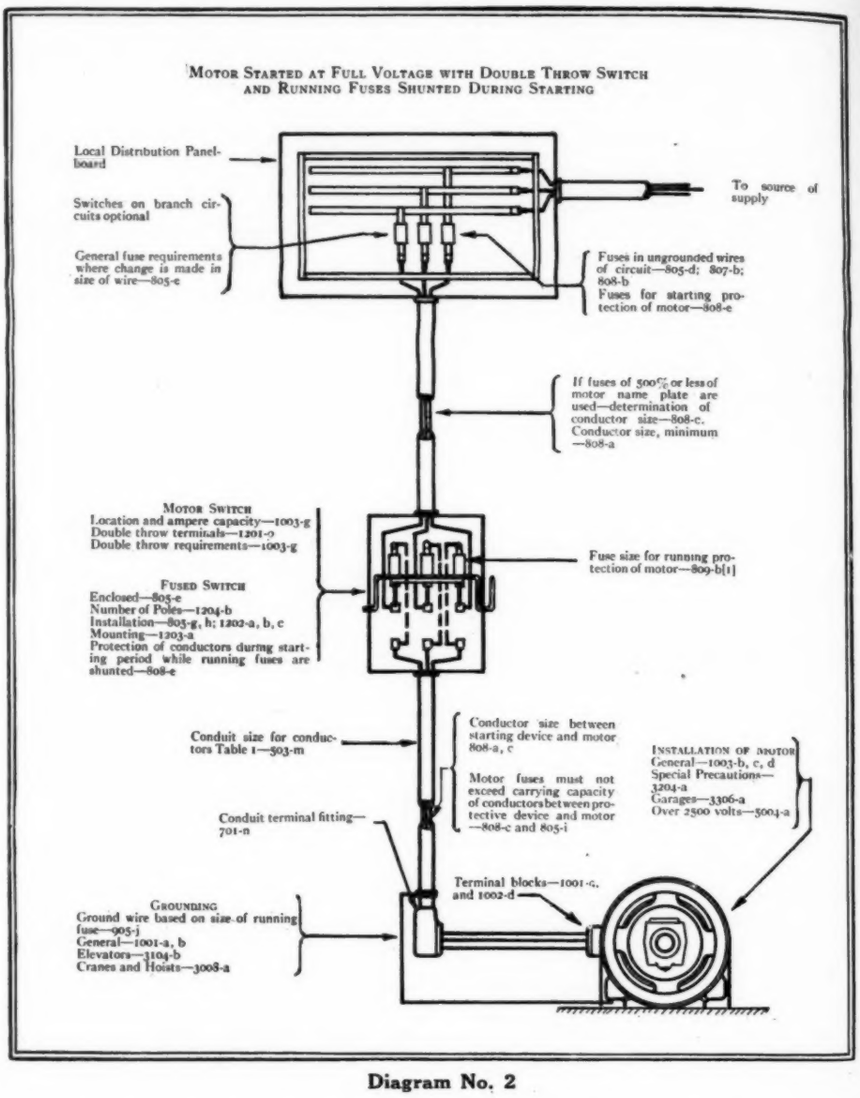

Motor Started at Full Voltage with Double Throw Switch and Running Fuses Shunted During Starting
Local Distribution Panelboard
Switches on branch circuits optional
General fuse requirements where change is made in size of wire—805-c
To source of supply
Fuses in ungrounded wires of circuit—805-d; 807-b; 808-b
Fuses for starting protection of motor—808-e
If fuses of 500% or less of motor name plate are used—determination of conductor size—808-c. Conductor size, minimum —808-a
Motor Switch
Location and ampere capacity—1003-g
Double throw terminals—1201-c
Double throw requirements—1003-g
Fused Switch
Enclosed—805-e
Number of Poles—1204-b
Installation—805-g, h; 1202-a, b, c
Mounting—1203-a
Protection of conductors during starting period while running fuses are shunted—808-e
Fuse size for running protection of motor—809-b[1]
Conduit size for conductors Table 1—503-m
Conductor size between starting device and motor 808-a, c
Motor fuses must not exceed carrying capacity of conductors between protective device and motor —808-c and 805-i
Installation of Motor
General—1003-b, c, d
Special Precautions—3204-a
Garages—3306-a
Over 2500 volts—5004-a
Conduit terminal fitting—701-n
Terminal blocks—1001-c, and 1002-d
Grounding
Ground wire based on size of running fuse—905-j
General—1001-a, b
Elevators—3104-b
Cranes and Hoists—3008-a

Diagram No. 2

Having determined on the size of the conductors between the branch circuit power panel and starting switch, we may now proceed with the problem of determining the size of the conductors between the starting switch and the motor.

As these conductors are only momentarily left without the usual protection, the Code recognizes that the hazard to them is limited and permits their size to be 110 per cent of the nameplate current of the motor. As section 809-B, sub par. 1, permits fuses of 125 per cent of the nameplate current rating of the motor, there are times when this fuse size dictates the next size conductor rather than the size that might be selected on the basis of 110 per cent. Set forth below are examples of the selection of conductor sizes between the motor running protective device and motor.

Example No. 2

Case 1.

Nameplate current rating of motor 10 amps. x 110% = 11 amps.

Running fuse 10 amps. x 125% = 12½amps.

Nearest size R. C. conductor for both cases No. 14 gauge, having capacity of 15 amps. (Sec. 610, column A).

Nearest size fuse—15 amps.

Case 2.

Nameplate current rating of motor 13.5 amps. x 110% = 14.85 amps.

Running fuse 13.5 amps. x 125% = 16.68 amps.

Nearest size conductor on basis of 110% — No. 14 R. C. or 15 amps.

Nearest size conductor on basis of 125% — No. 12 R. C. or 20 amps.

In Case 1, it is seen that the available conductor size gives some latitude regardless of whether it is based on 110

per cent or 125 per cent of motor current. In Case 2, a slightly different problem appears, for should the maximum size fuse permitted under this condition be used, the next size conductor would be required. Therefore, one would have to decide whether the conductor size be made larger to permit of the maximum fuse size, or to reduce the fuse size to protect the conductor size based on 110 per cent of the nameplate current rating of motor.

However, it would seem better practice to select a conductor size that would permit of the maximum fuse capacity, so as to avoid continual blowing from short overloads which might soon become a nuisance and lead to overfusing. It must be understood in this type of installation that the conductors between the branch circuit power panel and the double throw motor starting switch do not have to be larger than the conductors between the latter and the motor, if the fuses in the power panel are of a size to properly protect them, but if these fuses have only a small margin over the normal full load running current they are liable to blow often, due to the large starting currents, in which event they will probably soon be replaced with larger fuses that will more than likely overfuse the conductors between the branch circuit power panel and the double throw switch. Of course as these fuses are increased in size to take care of this condition, the conductor size has to be taken into consideration and, if desired, on the basis of section 808-C, in the interest of economy.

There is nothing in the Code that limits the size of a motor that may be started in the manner described in this diagram and the horse power range indicated above is dictated by practical considerations such as limitations enforced by the power companies in order to avoid line disturbances.

[These are the first of a series of power diagrams by Mr. Goeller. The others will follow in subsequent issues.—Editor.]

The Difference Between Preaching and Practicing a Code of Ethics

Editor, The Electragist:

A SHORT time ago an electrical jobbing house entertained "its trade." A most notable feature of the assembly was the fact that the jobber had overlooked about two-thirds of his "outlet." The hardware stores, the drug stores, barber shops and tailors were not present.

Evidently the jobber did not care to do that publicly which he does surreptitiously and the "harders," the tailors and barbers were consequently not invited to sit in. The jobber had on his company manners and was strictly ethical on this occasion.

This meeting was prima facie evidence that this jobbing house has public ethics, but a private policy. The jobber also did not invite his inside wiremen because the presence of its electrical workers and the local electrical contractors would have been embarrassing.

The fundamental law of economics, that one cannot hope to sell to those whose customers he sells, was given sinister recognition. In the presence of a local electrical contractor the jobber was exceedingly careful to have himself identified as a jobber and not as a dealer or contractor. The jobber therefore did not invite his electrical workers. He also took the precaution to entertain his guests at a nearby hotel and to keep them away from his place of business, so as to obscure the fact that he is conducting a retail store in direct and ruthless competition with the contractor dealer.

It is a store wherein anything can be obtained, from the repair of an electric flat iron to the wiring of a house by one of its protege's—another source of outlet. There were some speeches—the eminently satisfying announcement was made that just as soon as the electrical contractor became 100 percent efficient—that the jobber would refrain from contracting. "Perfection"—the goal of all things mundane, the purpose of the dew kissed rose, the dancing moonbeams and the song of the thrush.

The stars will scintillate for yet a million years and not attain 100 percent efficiency or perfection. There is one thing about this jobber—he is giving the electrical contractor-dealer lots of time. Meanwhile the jobber is contracting, repairing flat irons, selling the retail trade, selling the hardware man, the barber, the tailor and trying to sell to those whose customers he sells.

By what right has a jobber, so grossly imperfect, to demand perfection. Let us not tolerate such a reflection on our intelligence. Let not the jobber deceive himself, that by giving a yearly banquet he can take away from us our daily bread and butter.

What are the facts in the case? Is the average electrical contractor efficient?

The electrical contractor is engaged in a highly specialized line of endeavor, requiring special training. He certainly is efficient. Let a customer but think of a requirement! Long before that thought has been formulated into words the telepathic message will have reached ten electrical contractors and they will respond to serve him.

The time has now come when we as Electragists have a sufficient membership, have a sufficient aggregate purchasing power to demand that which is rightfully ours. Let us demand!

E. A. Arzt, *President, Iowa Association of Electragists.*

Glassware Coming Back

(Continued from Page 19)

The market isn't going to be confined to refixturing or new jobs either. Most of the fixtures that have been sold since the start of the war are unshaded. If a dealer asks, every time he sells one of the new lamps, why the customer doesn't try shades on his fixtures he is going to pick up a lot of business that way. It is figured that there are 14,532,000 wired homes in the United States, each averaging 26 active sockets or around 375,000,000 sockets in all. At least half of these are probably eligible for shades, making a tremendous market in addition to new houses and to refixturing jobs.

A word of caution about buying glass comes from a manufacturer. It is: Don't buy fads, buy dignified designs. A simple design stays in style longer and will please more people in the long run than a freaky affair. Furthermore carrying only a few tasteful designs helps a lot to keep down stock and increase turnover.

Glassware is coming back. There isn't any doubt of it. And the dealer who realizes it, is going to increase his profits.

William J. Ball, Moline

TO WILLIAM J. BALL of Moline, Ill., went the honor of being selected as one of the winners of the first James H. McGraw award for valuable contributions to the electrical industry. He gained this distinction through his conception of the idea of a co-operative sale to clear dead stock from the shelves of dealers and contractors. Mr. Ball has been a native of Moline all his life, having been born there in 1877. He graduated from the high schools of that city in 1897 and immediately went into the brick business. According to his own account he did everything but carry a hod; the things he did do for the brick industry included keeping books, wheeling brick and running a typewriter. Why he walked out on this field of endeavor he did not disclose, but in 1900 he could have been found starting the Moline branch of the Tri-City Electric Company of Davenport. That he had made no mistake in shifting his affiliations was proved by the sales record of the Moline branch during the first year when it did a business of $17,500. Since then the company has grown considerably and now does a business of about a quarter of a million dollars every twelve months. Mr. Ball was made president of the company in 1917. He has been identified with the work of many national electrical organizations, among them the Society for Electrical Development, of which he is a charter member, the A. E. I., and the American Institute of Electrical Engineers. He is also a member of the Electrical League of the Tri-Cities, the Elks and a director of the Moline Chamber of Commerce. Concerning the Volstead law he records himself as satisfied since we have prohibition and the country is wet.

Electragists You Should Know

M. S. Blumberg, New York

MEYER S. BLUMBERG'S service to the electrical industry may be judged by the fact that he was one of the early members of the oldest electrical contractors' organization in the world, the Electrical Contractors' Association, No. 1, of New York City. And the regard in which his fellow contractors—incidentally they know him as "Mike"—hold him is attested by the added fact that he is now serving the organization as president. Mr. Blumberg was born in New York in 1877 and, though it was a hard struggle at times, managed to get an education considerably above the average. He attended the evening high schools of the city, Cooper Institute—now the famous Cooper Union—and finished off by graduating from the Hebrew Technical Institute in 1892. All this while he was earning his living, his first job having been general manager of the refuse department of a chemical factory at a salary of $4 a week. On his graduation from the technical school he entered the electrical business in the employ of the Alexander Chamberlain Electric Company. He remained with this company until 1898 when he organized his own firm of Oberg & Blumberg. Mr. Oberg died in 1906 and M. S. Bleyer entered the firm in 1910. The company does a general electrical contracting business and its installations may be found in many widely separated communities all over the country. Mr. Blumberg has maintained his interest in technical education and is serving as a member of the board of directors of the Hebrew Technical Institute and as president of its alumni association. He is active in local association work, being a member of the New York Electrical Board of Trade, the New York Electrical League, the New York Electrical Society and the Building Trades Employers' Association.

How Contractors Can Build Good Customer Relations

By M. S. MacNAUGHT

NEARLY all of us habitually make our purchases at some congenial place. Back of price and quality stands the intangible but potent factor of satisfactory relations with this or that particular merchant. This matter of pleasing customers is of the first importance and no electrical contractor will be able to build up his business without paying serious attention to customer relations. Mr. MacNaught presents in this article an intelligent and helpful discussion of the subject.—The Editor.

THE electrical contractor obtains business in three ways: By submitting bids on openly competitive projects; by seeking out smaller jobs and landing them through salesmanship; and by having customers call him in when something electrical is to be done.

In all three cases, customer relations is a factor of first importance, and well worth more study than it usually receives.

Even when dealing with open competitive bidding, the contractor faces a blank wall unless behind his bid there is the supporting force of a good reputation. The contractor who meets the owner half-way, who is reasonable in his dealings with architects, and lives up to the requirements of specifications without prodding, is rarely denied a place on any list of bidders.

To those who solicit work directly, customer contact is an important phase of the business. First impressions must be satisfactory and sales talk must be backed up not only by technical knowledge, but by reference to satisfied customers and a common reputation for honest service.

Beyond all doubt, the third class of customers, those who call in a contractor year after year and give him work without any competition or fixed price, pay tribute to solid business dealings and regard for the value of service.

This article is concerned solely with the importance of good customer relations, and a few methods by which goodwill may be built up into a really valuable asset.

Many a contractor has envied some insurance man because of the fact that every policy he sold netted him an income, not once, but year after year, and so made his prosperity a cumulative affair. Yet our field is even more fertile and enviable.

The contractor who takes the proper attitude toward every customer finds himself gradually building up a clientele which thinks of him, and him only, when something gets out of order or when alterations are planned.

As another instance, the contractor who erects an office building has the inside road to the electric work which various tenants are sure to require when they move in. He has the chance to become well acquainted with the building superintendent, and then year after year when someone moves, or alterations are made, the superintendent or tenant turns quite naturally to the man who made the first installation, and he wins the new work on a very favorable basis.

Generally speaking, once an Electragist performs an all-around satisfactory job, that customer is securely his against ordinary competition until he loses him by his own carelessness. Any contractor who has canvassed business houses for jobbing work realizes how strongly intrenched his competitors are.

An Established Clientele

While new and large contracts are unquestionably needed to keep the average contractor in full swing, the jobbing work which comes from an established clientele is very desirable "velvet," requiring comparatively little attention if its management is properly understood.

Satisfactory handling of this work requires the use of good men and materials, plus some means of carrying on routine business with little attention from the proprietor.

Very often an intelligent office girl can take charge of the details of this class of trade. Routine calls can be turned over to a woman with sufficient maturity, courtesy, experience and brains, and still give the customer satisfactory service.

As a matter of fact, for contractors doing less than $100,000 a year gross business, an efficient girl is a valuable means of keeping down overhead and keeping up customer relations.

The writer has had the opportunity of observing one outstanding example of this modern business woman at work. She knows the customers by name, remembers their phone numbers and ordinary details of their electrical requirements, and considers it part of her job to know how to handle various clients. If they have any peculiarities, so that they must be handled with gloves, she knows them and is on guard so that she will not cause offense.

When a customer calls, even though the manager and superintendent are out, he talks with an intelligent girl who is in a position to give him service if his plant has developed trouble, or he can quickly obtain general information as to prices and other routine or semi-official matters. As an aid in case of emergency calls, this girl keeps a chart showing the location of men available for such duty, which the superintendent daily checks to keep it up to date.

It is infinitely more satisfactory to call an office and hold a conversation with a modern business woman, who speaks correct and technical English and is capable of rendering excellent service, than to talk with the average office employee who knows nothing of the business and whose stock phrase is "If you will leave your number I will

have Mr. Contractor call you when he comes in."

Altogether too many contractors consider it economy to employ a twenty-dollar-a-week-girl in the office. It is extremely doubtful if such an office "staff" is of any value whatsoever in the matter of customer relations.

Trained Office Help

By paying perhaps $35 or $40 a week for a trained woman, a really superior type may be secured, and the slight increase in overhead is justified by the service benefits alone. In a later article other advantages of the high grade employee will be presented, but for the time being let it suffice to say that the electragist who pays a bit more for real ability will steal a march on his less progressive competitors.

Any customer with even the slightest regard for quality is sure to judge the contractor by the workmen he sends, the materials they use, and the excellence of their work. It is pertinent at this time to point out briefly the value of cleanliness. Any man who enters an office or goes to a private home to do repair work compliments the customer and reflects credit on his employer if he is neat, has clean hands, and clothes that are decent in appearance.

There is no more common source of irritation to the average home owner than the workman whose finger marks on doors, paper and furniture mutely announce his presence. This type of man, regardless of ability is not suited to high grade jobbing work, or the finishing of new construction; his proper place is roughing-in on new buildings.

Neat Workmen

Another point. Even old clothing can be patched and brushed enough to be reasonably presentable, so that when the man enters a home he does not appear quite like a bum. Then if he puts on clean overalls, jumper and gloves he is meeting the standard which is so necessary to satisfy the average desirable customer. In some of the finest homes workmen are required to wear clean slippers in place of their street shoes. The desires of customers in matters of this sort should be catered to, for it is usually of real importance to them.

In order to retain good patronage, a neat job done with good materials and installed so that there will be a minimum of future trouble is essential. If a man is called on repair work, and finds an old system which should be replaced it is his duty to get it back into temporary working order with a minimum of expense, and report to his superintendent that extensive repairs or a new installation should be made.

Wiring deteriorates, fixtures go out of style, dangerous fire hazards develop as years pass, and if only the men are taught to report when they find these situations, better service can be given and often a good sale made.

The man who dumbly fixes an antiquated system, which breaks down again in a short time, is brewing trouble for his employer. Any customer resents making repeated calls to have the same system repaired. It is far better to tell him at once that it is beyond permanent repair, and then interest him in making a new installation.

Customers Appreciative

Obviously, this means more business to the contractor, and it is sure to please the customer better than a constant flow of small bills for temporary repairs, coupled with the inconvenience caused when the system is out of order. Also, the customer appreciates the interest which the contractor shows in making an honest report of conditions.

Good workmen, good materials, good work, at good prices, all backed up by superlative service on every job. If these do not please the customer, let your competitor have him; you will be better off!

Price is so often a sore spot in customer relations that it is deserving of careful consideration. Unfortunately, the impression prevails that contractors as a class are too prosperous, are ready to take unfair advantages, are prone to charge exorbitant prices. Too many laymen look upon the construction industry as some sort of a Utopia where prices and profits are limited solely by what the traffic will bear.

The same man who signs a check for five hundred dollars for the lawyer who settled a two hundred dollar suit will pay a surgeon a thousand dollars for removing a twitching appendix, then turn around and dispute an itemized electragist's bill for sixty-nine dollars. A bit exaggerated! Not really!

Rare indeed is the contractor who does not dream of cost plus or day work jobs, and quite frequently they come his way. In good faith he may install motors and fixtures, only to have a world of trouble at the end over the size of the bill that he submits.

This is due to the inability of the layman to understand the expense of modern construction work both as regards labor and material. He does not realize that it takes time for a man to travel to and from the job, that conduit does not bend itself around corners, and that panels, starters and switches all take time to mount.

Flat Price

The simplest way to avoid such trouble of course, is to do all work on a flat price basis. An experienced estimator can come reasonably close to the ultimate cost of almost all alteration work, and usually a fairly good margin for overhead and profit can be added. If the contractor is reasonable, and makes his price up on the basis of actual costs, plus fair profit and overhead, with a little added to compensate for the uncertainties of alteration work, his bid ought to be attractive.

Once a flat price is agreed upon, the danger of later argument over the bill is eliminated, and far more harmonious customer relations prevail.

There are cases, however, where a flat price cannot be given. The contractor cannot quote a figure if the customer does not know exactly what he wants. If a serious question exists as to the number of outlets, locations, etc., the work should of course be done on a cost plus or day work basis. Since the two methods are similar as regards customer relations, only cost plus will be considered.

Cost Plus

If an honest contractor is dealing with an honest customer who is willing to see someone do his work and make a legitimate profit the cost plus method is far and away the best for all concerned. At the same time, it has some very real dangers.

The customer should be induced to have this type of work done on a quality and not a price appeal. As soon as a contractor presents this method as a cost saving proposition, he as good as invites the customer to compare the final bill with estimates received before work started, or prices on previous similar work.

If a contractor quotes a flat price, he at the same time specifies the limits of the work he will do. On the other hand, in dealing with cost plus jobs, almost invariably additional work is done

so that the final bill is larger than at first contemplated.

Here lies the gravest danger. If a contractor quotes a flat price for certain work and then proceeds to sell his customer a cost plus job with the argument that it is fairer all around and may save a little money on the estimated figure, he is courting trouble. Half way through the job the customer decides he wants some locations changed; then later he adds a few outlets. Perhaps the original quotation was $500 and the bill as rendered is $585.

Notwithstanding the increased work done, four out of five customers will remember the original quotation, fail to realize they have ordered extras and register a complaint in no uncertain terms. Sometimes an appeal to reason effects a satisfactory settlement, but the average layman never seems to be able to visualize the fact that the added work has honestly greatly increased the job cost.

The lesson to be learned from a few such experiences is this: Never quote a price and then agree to do the work on cost plus unless favorable conditions exist. Inevitably the customer looks upon the first price as more or less of a maximum or outside figure and will resent any larger bill. This means argument and argument usually means loss of the customer.

To a customer who appreciates quality, cost plus can be made a very appealing proposition. It has distinct advantages to the customer and if no outside price is mentioned the contractor has nothing to fear. Clear sailing is the rule if such work is taken without any price being talked of, for the customer can easily check up on material used to his entire satisfaction, and labor can be systematically checked if desired.

As a matter of fact, some contractors find it to their distinct advantage to write a cost plus client about as follows:

> We realize that in your plant you may have certain rules in force, and it is our intention to have our workmen live up to them. Consequently, if you find them violating any of your regulations, please notify us, or caution them. We instruct our men not to smoke on your premises, and we particularly insist upon a full days work from every employee.
>
> We request that you instruct our men to report to your time keeper each day, and that he both keep a complete record of time worked, and initial the time slips our men turn in to us.
>
> In this way you will have evidence that our men have given you every hour for which we charge you. If our men are not doing a satisfactory amount of work, please let us know immediately. We can then adjust the matter to your complete satisfaction, which would be impossible if you did not enter a claim until the bill was rendered and the circumstances dimmed by time.

Material can be readily checked; the usual bone of contention is the labor item. How often a customer claims "Your man was loafing half the time," *after* the job has been finished, and the real facts forgotten.

The above letter is designed to forestall all arguments as to labor charged against the job by putting the responsibility directly on the customer. If his own man signs the time slips, there can be little argument that the records have been faked at the office. If in addition he is requested to immediately report any loafing, he can hardly put in a claim weeks after the job is over.

In this way, an honest contractor can take cost plus work without fear of argument. All arguments are choked off before they start.

An itemized bill is of real value in this type of construction. By listing all material, labor and prices, the contractor demonstrates his readiness to deal openly, and any normal customer will hesitate to challenge the bill.

Cost plus work, performed on an honest basis between typical modern business men, and safeguarded by the following simple rules, becomes a customer-winning method.

1. Do not quote an outside figure, unless the work to be done is rigidly specified.

2. Settle in advance what percentages are to be added.

3. Decide just what "overhead" is to include. Some men expect it to include expressage, insurance, etc. These are real job expenses and should not be included in overhead.

4. Put the responsibility for labor used squarely on the client.

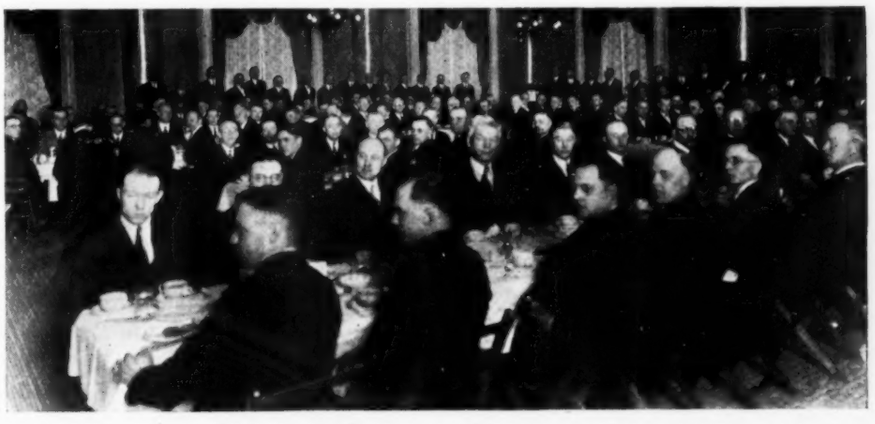
5. Have a signed order before starting work.

6. Itemize in detail the entire job when the bill is rendered.

(To be continued)

Canton Organizes Association for Foremen

THE value of good foremen and the fact that foremanship is a profession have been recognized in Canton, Ohio, where a Foremen's Club has recently been organized and held its first dinner meeting on April 19. The organization started off with a membership of 250 and there were over 200 present at the inaugural meeting shown in the photograph.



The First Gathering of the Newly-Organized Foremen's Club of Canton, Ohio, With an Attendance Over 200

The talks at the meeting brought out the fact that the foreman has a profession since he is the buffer between production and management and that many elements of personality enter into the making of a successful foreman.

What American Standards Mean to the Electrical Industry

An Explanation of the Functions and Procedure of the American Engineering Standards Committee Whose Work Has Made it Possible to Have a Uniform Wiring Ordinance in Every City in the United States

By FREDERIC NICHOLAS
Secretary, Electrical Manufacturers' Council

WITHOUT the facilities which the American Engineering Standards Committee provides many American industries—and especially the electrical industry—progress and development would be seriously impeded, costs would increase and difficulties would multiply, due to the lack of uniform nationally recognized and coordinated standards. If the American Engineering Standards Committee were not in existence some similar body would sooner or later necessarily be formed.

The complexity of modern industrial relations precludes the existence of an individual industry for and by itself. This is particularly true of the electrical industry having, as it does, interests wherever light, heat and power are used. When two or more industries work together the relations one to another are constantly changing. Frequent adjustments of policies are necessary to take care of new needs, misunderstandings and clashing interests.

Adjusting Relations

The electrical industry might adjust its relations with other industries by laying these matters before some government tribunal. In this manner the claims of all parties at interest would be considered by a third "disinterested" party and some decision reached. There is little likelihood, however, that the officials rendering the decision would have adequate personal knowledge of and an opportunity to exhaustively investigate the case in point. Another prohibitive consideration for settlement by this method is the lack of entity of government as it applies in this situation. Unfortunately "government" here means one federal and a great multiplicity of state and municipal governments. Were government a single entity it might be possible to build up a body of consistent decision, making this method feasible and advantageous.

The alternative is for the leading industries of the United States to agree on a comprehensive plan whereby specially selected groups of experts, representing all parties at interest, including producers, consumers, government and general interests, can study thoroughly each of the intricate problems of standardization as they arise, and establish the best possible solution.

These decisions, besides being acceptable to those directly concerned, are accorded favorable consideration by government and legislative bodies as representing the opinions best qualified to pass on the subject.

This is, in fact, the function of the American Engineering Standards Committee.

Sponsoring Bodies

The American Engineering Standards Committee was initiated at a meeting on January 17, 1917, of a special committee jointly appointed by the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Society of Mechanical Engineers, the American Institute of Electrical Engineers and the A. S. T. M., which was convened for the purpose of forming some method of cooperation to prevent duplication in standardization work and the promulgation of conflicting standards.

The American Engineering Standards Committee thus formed was soon reorganized so that government departments and any national technical or trade organization interested in its work might be admitted to membership.

Under the American Engineering Standards Committee's systematic plan of cooperation all organizations, regardless of their membership in the American Engineering Standards Committee, interested in any proposed set of standards have the right to take part in deciding whether or not the proposed work shall be done and if so have a voice in formulating the decision and in the ultimate approval.

The procedure followed by the committee is as follows:

Some responsible national organization requests that action be taken on the establishment or change of an American or national standard. The American Engineering Standards Committee appoints a "sponsor," selected from among the principal bodies interested. The sponsor forms a "Sectional Committee" made up of representatives from all interested bodies invariably including government, producers, consumers and general interests.

Final Action

The Sectional Committee does the actual work on the case and submits its finished proposal to the Main Committee of the American Engineering Standards Committee through the sponsor. Approval or rejection follows.

Approval by the American Engineering Standards Committee means that the proposal has been considered just and fair to all concerned.

The Uniform Electrical Ordinance is an excellent example of the efficacy of the American Engineering Standards Committee.

When the Electrical Manufacturers Council was preparing this ordinance the problem arose as to what codes should be included in it. Fire and safety codes prepared by the electrical industry would have been adequate but unsatisfactory to other interests because of the natural assumption of a bias in the maker's favor. Again, with all commercial interests included in the preparation of the codes the result would have still been unacceptable, because government interests would have felt that the public had not received sufficient consideration.

Uniform Ordinance

There were already in existence two codes affecting the electrical industry—The National Electrical (Fire) Code of the National Fire Protection Association, and the National Electrical Safety Code of the United States Bureau of Standards. Although both these codes were the result of years of study and experience, they were still considered not broad enough to satisfy all interests.

Fortunately the American Engineering Standards Committee was available. The two codes were put through the specified procedure of this organization, meeting necessary revisions and additions and, as a result, both codes have been made universally acceptable in the form of The Uniform Electrical Ordinance.

The Way the Modern Show Window is Lighted

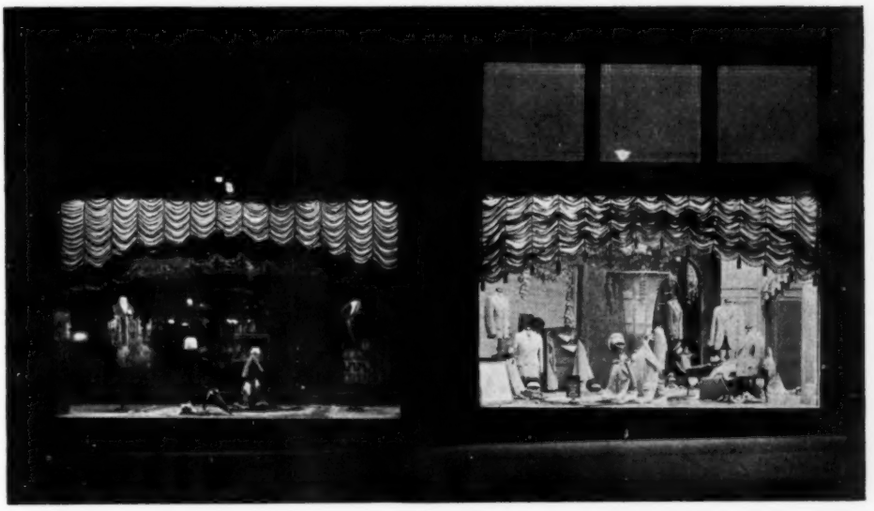
By JOHN A. HOEVELER
Manager, Engineering Department, Pittsburgh Reflector Company

NINETY percent or more of the store windows are prospects for profitable business to the electrical contractor. A new consciousness of the value of light in creating effective window displays pervades the minds of the progressive window display managers, which, quite obviously, means the installation of more complex window lighting installations.

The electrical contractor is the logical person to whom the merchant should turn to seek advice and assistance in this matter, which fact opens an avenue of profitable business to the Electragist who is properly qualified to give expert advice. The purpose of the present article is to acquaint Electragists with some of the recent developments in window lighting equipment which materially aid in getting the desired stage-like effects.

In two respects the show window presents a more difficult problem than the stage: (1) the stage manager is not handicapped by the presence of a plate glass, in which daylight reflections occur, which may more or less completely veil the display; (2) stage lighting equipment is more readily concealed and fewer restrictions are placed upon its location. To be successful the window display man not only must be a scenic artist, but must have at his command the material equipment of the stage director, so that he may create his scenes, place his actors, and, with the aid of light, reveal them to the public. He must thoroughly understand that maxim of the illuminating engineer "Light on the object, not in the eyes."

Before proceeding with a detailed description of the modern window lighting installation it might be well to review briefly the various phases of the window lighting problem of today. In the first place, it is generally recognized that very much higher illumination is necessary in the window in the daytime than at night, in order that the veiling reflections in the surface of the plate glass, already mentioned, may be overcome. Investigation seems to indicate that where the material on display is very light an intensity of 150 foot-candles on the trim is required in order to overcome such reflections. Where the color tone of the trim is medium or dark values in excess of 250 foot-candles may become necessary. In fact, with very dark trim, the illumination in the window may need to be as high as 2,000 foot-candles for ordinary circumstances and as high as 4,000 where the object causing the reflected image is a cloud. Secondly, the use of colored light calls for the use of additional lighting equipment.



Two Show Windows That Speak Silently About the Value of Good Lighting to Good Merchandising

In the writer's judgment the display man should have at his command window lighting equipment which will enable him to have a range of illumination intensity on the trim, varying from a minimum of 50 foot-candles to 250 foot-candles. The lower of these values may be sufficient at night, with a light colored trim, whereas with a dark colored trim, at least 100 foot-candles will be necessary. Use of the full amount of this illumination will make it possible to overcome, or at least greatly reduce, ordinary daylight reflections in the plate glass. In the instances where several thousand foot-candles are necessary in order to overcome daylight reflections use may be made of auxiliary window spots and window floods trained upon important portions of the display. It would not be considered practicable in the present stage of the art to attempt to illuminate the entire trim to such high intensity. Further, experience has shown that it is difficult to illuminate black goods with illumination directly applied. In fact, if the merchandise is thoroughly black, no practicable amount of illumination, directly used, will give effective results. If the display is very dark, objects, such as automobiles, radio sets, and machinery, the display will be more effectively revealed by the use of silhouette lighting. Such silhouette are secured by illuminating the background, as well as the goods directly.

In the above illustration are pictured two show windows, photographed simultaneously. The right hand window, which is a corner window, is equipped with a flexible system of window lighting which enables the display manager to do a real job, whereas the window to

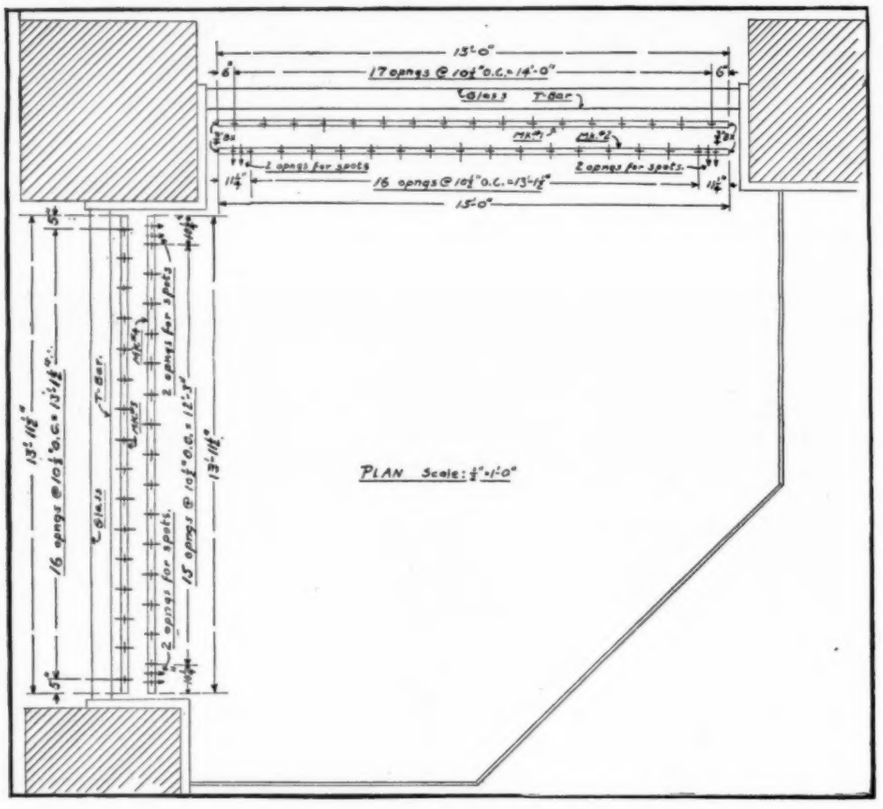


Figure 1—A Good Layout for a Window Lighting Installation

the left is illuminated by means of the usual run of equipment found in what today would still be called the better class of show windows. One glance at this photograph will be enough to convince a person of the vast improvements that are possible in window lighting.

A plan of the corner window is shown in Fig. 1. This window lighting equipment differs radically from the usual run, as to type, quantity, flexibility and method of installation. It will be noted that two rows of reflectors are installed. The row nearest the plate glass is of the downward concentrating type, whereas the front row is of the type which lights up high upon the background. Two-hundred watt lamps are used and the reflector positions are staggered with respect to each other.

In Fig. 2 is shown an enlarged section of the window at the transom bar, illustrating in detail how the reflectors and conduit are installed. A special rectangular metal conduit or raceway is used which permits of accurate spacing.

Each conduit is wired with alternate outlets on separate circuits. This makes possible one-fourth, one-half, three-fourths and full illumination intensities. During the day, when daylight reflections in the plate glass are severe, the entire system of sixty-four 200 watt lamps and reflectors may be used. At night, with white light only in use, half of the units in each row may be turned on and very effective illumination will result. Moreover, with the alternate spacing of reflectors, and with the relatively close spacing, even when each alternate unit only is lighted, the distribution of light over the trim will be very uniform.

Color lighting equipment, which may be fitted over the mouth of any of these reflectors, enables the display man to tint his display with colored light in the manner so successfully employed by the stage electrician. By the use of supplementary "spots" or "floods," located at the top, and additional ones properly concealed behind portions of the trim, it is possible to realize some striking effects.

When using color screens glass will be found to have an advantage over gelatin sheets in that it will not fade or be otherwise seriously affected by the intense heat of the lamps. Moreover, the colors in the glass are more selective and give purer hues.

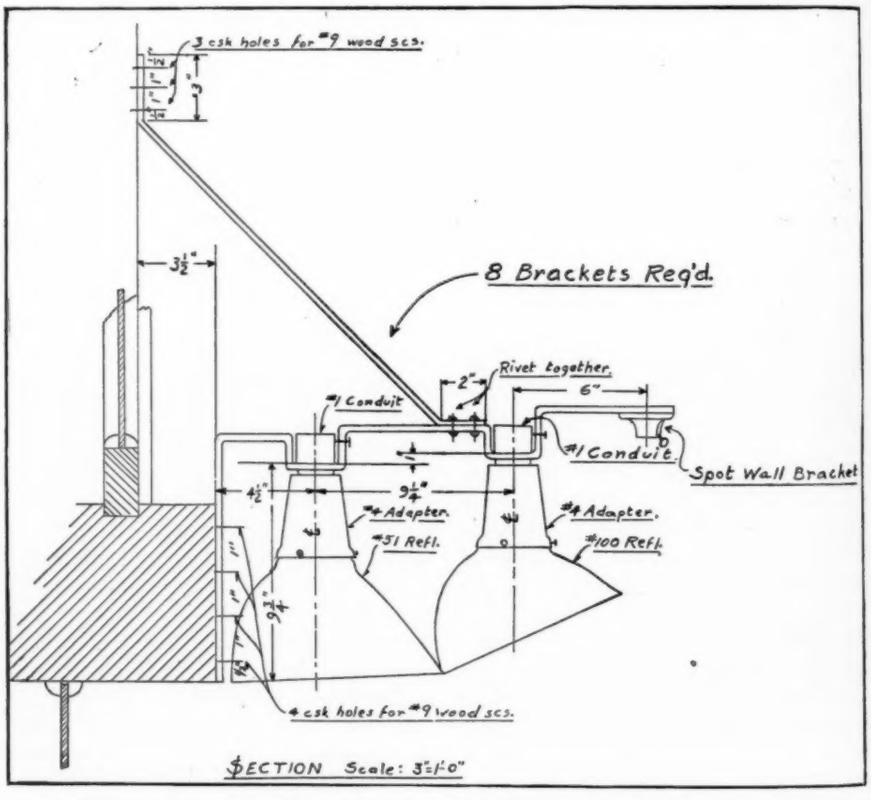


Figure 2—An Enlarged Section of the Window Showing Installation Details

Red Seal Progress

DURING May, according to the report of the Society for Electrical Development, the Red Seal Plan spread its influence for more adequate wiring to half a dozen new cities and gained much momentum in the communities in which it is already in operation.

Only one license was granted during the month, that one to the Electrical League of Rhode Island on May 7, but applications for licenses were received from Jackson, Mich., Savannah, Ga., Chattanooga, Tenn., Elmira and Albany, N. Y., while a number of other important cities requested information as to the operation of the Red Seal Plan. Requests for information along these lines were also received from Great Britain and India, showing how far afield the fame of the Red Seal has gone.

The first step in the operation of the plan in Rhode Island was taken on May 27, when the invitation meeting for architects, builders and real estate men was held in Providence.

News from other Red Seal territories includes the word that the plan in Detroit will be considerably furthered by the decision of a prominent speculative builder there to make every one of the 350 homes he plans for 1926 a Red Seal house. Further details of this are to be announced later. An unusual feature of the Red Seal work in Detroit is the assistance given by the municipal electrical code which includes a part of the Red Seal specifications.

This home, the first to be awarded the Red Seal Certificate in the territory of the Detroit league, was built by A. R. Maynard, manager of the Graybar Electric Company's office in that city. It is not only well wired but has a complete set of electrical appliances, ranging from the usual washing machine and vacuum cleaner to the more unusual but most useful electric phonograph and electric cigar lighter.

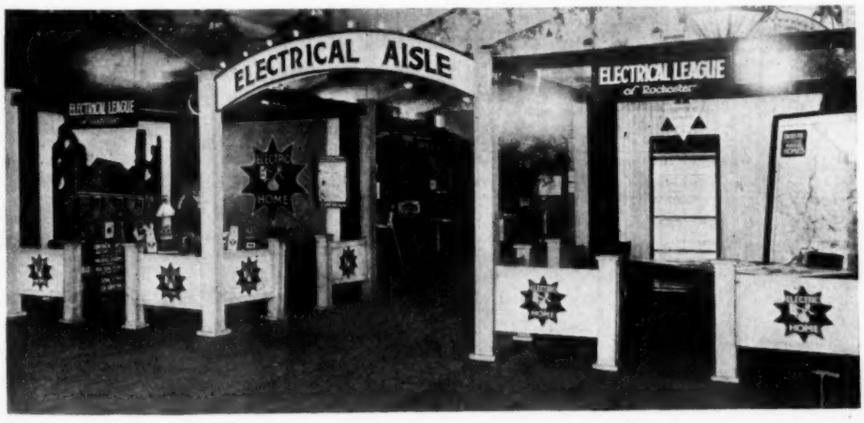
In Kansas City the Red Seal has been put into operation with considerable enthusiasm. The first Red Seal Certificate was awarded to the prize home of the Lehigh Portland Cement Company. The house has six rooms and a total of ninety outlets and the Red Seal will receive a great deal of publicity due to the fact that the house is to be open for inspection by the public for four weeks. The architects and builders meeting for the Kansas City territory was held on May 14 with a large attendance.

California, having named a goal of 2,000 Red Seal homes during the year, is hard at work trying to keep the pace promised for the state. Architects' meetings have been held at Los Angeles, San Francisco, in the territory of the Northern Counties League, at Pasadena and Richmond. The Los Angeles meeting had a record attendance of 463 at its meeting.

Many speculative builders in California have become enthusiastic over the possibility of the Red Seal Plan. The Diamond Match Company, at Chico, builders of many homes throughout the state, has announced that the Red Seal specifications will be included in all its plans from now on. Word has come also from Richmond that about forty homes there will be made Red Seal.

The Red Seal is making good headway in Colorado, a number of Denver homes as well as a number built outside the city having received certificates. On May 3 there had been a total of 22 applications received by the league there.

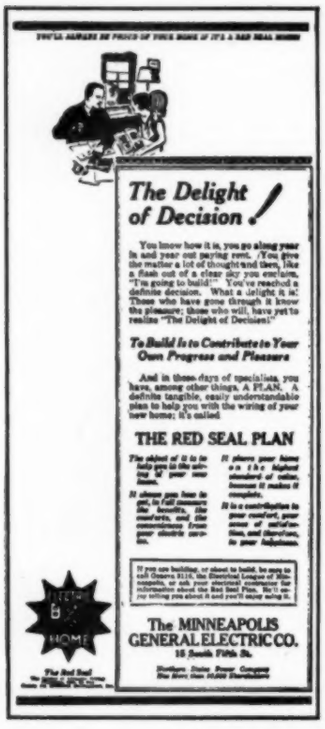
Pittsburgh has increased its Red Seal territory by adding Green and Armstrong counties, which have nine communities over 500 population and a total population of 22,850.



The Red Seal Exhibit at the recent Rochester "Home Beautiful" Show Occupied the Most Conspicuous Place in the Exposition, Being Directly at the Entrance Where Visitors Could Not Miss It

Value of Setting Red Seal Quotas

While no formal attempt has been made by those directing national Red Seal work to set quotas for the individual licenses, it has been recognized for some time that setting a goal for league members to shoot at has a great deal of



Here Are Advertisements Which Sell the Red Seal by Selling the Joy of Living First—They Stress the Desire of Every Man to Own a Home

The Pleasure of Planning!
But When It Comes to the Wiring, Remember the Red Seal Plan!
The MINNEAPOLIS GENERAL ELECTRIC CO.
15 South Fifth St.

The Thrill of Moving Into A New Home!
But From Now On You Have In Store Even a Greater Thrill
THE RED SEAL PLAN
The MINNEAPOLIS GENERAL ELECTRIC CO.
15 South Fifth St.

One by One the Advertisements Pick Out the High Spots in the Building of a Home and Show How the Red Seal Means Satisfaction and Comfort

influence in spurring on Red Seal activity. A number of leagues have already adopted this plan with good results.

The largest quota set is that of California which is two thousand Red Seal homes by the end of 1926. On April 26 there was a total of 78 Red Seal homes in that territory with public interest being aroused more and more every day and a very good possibility that the goal will be reached. Atlanta has named 150 houses as its ambition for the year, Denver will not be satisfied with less than 100 and Kansas City has set itself the task of completing 200 Red Seal installations before January first. The Hudson Valley Electrical League is aiming for a goal of 200 houses during the year, having already completed 29 of this number.

Red Seal Being Advertised to Millions Monthly

No attempt has been made to estimate the number of readers of the newspapers and magazines which to date have carried the Red Seal message to the public. The circulation of these publications runs, however, into the millions, which means that the story of adequate wiring has already gotten before the public to an extent that is as astounding as it is little realized by many electrical men.

In California, for instance, fourteen magazines published in the state, carried full page advertisements of the Red Seal during May. Pittsburgh has started a new series of advertisements which run every Sunday in the newspapers. Other leagues have used and are using advertisements such as have been illustrated in these pages in previous issues.

Illuminated billboards are being used in Minneapolis, St. Paul and Youngstown, three having been erected in the first named city, two in St. Paul and eight in Youngstown. The boards read: "This Red Seal is the Trade Mark of a Completely Wired Electrical Home," and carry pictures of the seal and of the home shown on the first page of the Red Seal folder distributed by The Society for Electrical Development.

Home Bureau Syndicate Carries Red Seal Story

The story of the Red Seal had been carried in seventy-seven American newspapers to May 1, according to the report made to the S. E. D. by the American Homes Bureau. The latter organization each year publishes a supplement which is sold to newspapers in cities all over the country for use in special editions, the entire 32-page supplement treating of "How to Create Better Homes." A full explanation of the Red Seal Plan, together with allusions to it in several other stories, is carried in this year's supplement and it is expected that a total of 150 newspapers in as many cities will use the supplement by the end of the current year.

Among the prominent newspapers which have already contracted for the use of the 1926 edition are the Boston Transcript, Kansas City Star, Hartford Courant, Chicago Post, New Orleans Times Picayune, and Erie Dispatch.

Electragists Praise Cedar Point as Annual Convention Spot

Time and Place Chosen for 1926 Meeting Draw Many Expressions of Approval because of Accessibility and Unexampled Facilities for Combining a Vacation with Convention

CHOICE of Cedar Point-on-Lake-Erie, Sandusky, Ohio, as the scene of the 1926 annual convention of the Association of Electragists, International, has elicited unstinted approval from members of the association in all parts of the country. It is expected that this year's convention, to be held August 24-27, will set a record for attendance, judging by the reception given the announcement of the change from last year's location.

The part that seems particularly to appeal to members consists of the vacation attractions there. The most important of these is the bathing, for the resort is situated at the end of a long peninsula jutting out into the waters of Lake Erie. Stretching for miles to either side of *The Breakers*, convention headquarters, is one of the finest inland beaches in the world, sloping so gradually at all points that the dangers of swimming are almost entirely removed. The most populous portion of the beach, of course, is just in front of the hotel and guests may don their bathing suits in their rooms and, after just a few steps, be in the surf.

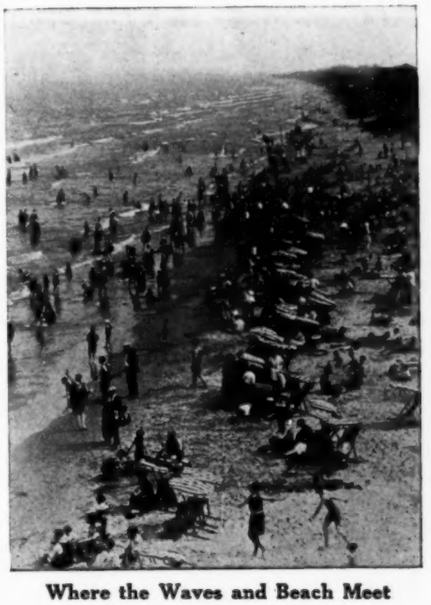
Back from the shore one drops into tall cool groves of elms and maples through which wind miles of paths, skirting here and there the shores of the lagoons. These lagoons honeycomb the peninsula and afford a wonderful opportunity for the canoeist and oarsman.

There will be plenty of golfers at the convention and their satisfaction has also been arranged for. All delegates can obtain guest cards to the Plum Brook Golf Club, which lies nearby. The only charge will be the usual greens fee.

And for those who want more than bathing, boating and golf there are steamer trips to Put-in-Bay and a chance to try fisherman's luck at several of the famous fishing grounds of the Great Lakes, within an hour's sail of the hotel.

The Breakers itself is a mammoth hotel made up of a number of long wings, with every room an outside room. The establishment is operated on the European plan so that guests may select the rooms they desire and have their choice of the dining rooms, buffet or the fine cafeteria at popular prices for their meals.

Special low rates have been granted the Electragists' Convention, ranging from $1.25 per day per person for a double room without bath to $6 for the very finest single room with bath. Thus delegates to the convention may take their families to this resort for their entire vacation period at a very low cost. Also there will be no registration charge this year, the only convention expense being $3.50 for the annual banquet.



Where the Waves and Beach Meet

Transportation to Cedar Point is unexcelled, it being on the main line of five railroads and one interurban system. It is near Sandusky, Ohio, and is reached from there by hourly ferry service. Large lake steamers land at the end of the peninsula and automobilists may drive directly to the hotel grounds over a concrete boulevard leading from the main concrete highway east of Sandusky.

Sandusky is on the main line from New York to Chicago over the New York Central, with excellent train service from all intermediate points. It can also be reached by the Big Four, Nickle Plate, Pennsylvania, Baltimore & Ohio and an interurban railway that reaches Toledo and Cleveland.

Tram Cars from Steamboat Landing Through the Woods to Hotel

The lake steamers sail from Buffalo, Cleveland, Toledo and Detroit.

As tentatively drawn up the program for the convention is as follows:

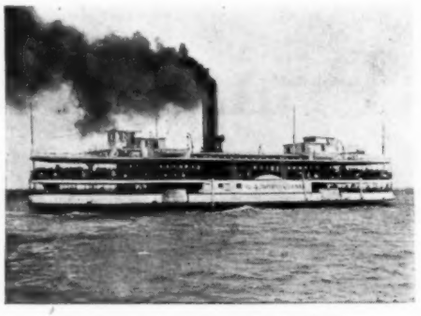
Tuesday, August 24—A. E. I. Executive Committee Meeting—Conference of Local and State Association Secretaries—Meeting of Indiana Association of Electragists—Meeting of Northern Ohio Electrical Contractors—Other State Association Meetings. Opening of Electrical Manufacturers' Exhibition.

Wednesday, August 25—Twenty-sixth Annual Convention, Association of Electragists—President's Message; Reports and Discussions on Trade Policy, Wiring Methods, Code, Licensing, Standardization, Insurance, etc.

Entertainment Features in charge of Glad Hand Committee.

Evening—Carnival Ball in Coliseum.

Thursday, August 26—Convention Sessions—Talks and Discussions on Estimating, Distribution, Management,



Cedar Point—Sandusky Ferry

Buying, Selling, Collecting, Red Seal Wiring, etc.

Meetings of Open Shop and Union Shop sections.

Evening—Annual Banquet, with special features.

Friday, August 27—Convention Sessions—Contractor Problems, New Developments, Recommendations.

Executive Committee Meeting.

Evening—Dancing in Coliseum.

Trade Association Membership As a Business Asset

"An investment in knowledge pays the best interest."

—Ben Franklin

By J. R. WILSON

PROGRESS and healthy growth, in line of business, comes only through the discussion of honest differences of opinion among those competent to know the faults of their business.

Membership in his trade association should be considered as a part of a man's code of business success. Only through contact and exchange of ideas, with those engaged in the same business, can a man hope to attain the maximum of success.

Franklin's thought did not necessarily mean a monetary investment. An investment, represented by the time a man gives to association work, may show a greater return, in knowledge received, than any amount of money he could expend.

The majority of men are good thinkers, and a certain percentage are good talkers, but most busy men are poor writers. Therefore you may buy ALL the books written on the subject of your business and still some of the very best thoughts and ideas will be lost to you.

The only way you can reap the benefits of these thoughts and ideas is by coming in personal contact with the men who father them. And the only logical way to make that contact, with the least expenditure of time and money, is through membership in your trade association and regular attendance at its meetings.

Each one of us has been given two of the most marvelous machines ever known, a heart and a brain. Our brain functions as an incubator of thoughts and ideas and grows as we work it to full capacity. The ideas you may have might prove invaluable to me could I but have access to them.

A man entering any business must recognize that he will have competition. Legitimate competition is the life of business and must be recognized as such. To overcome the idea that your competitor is some one to be shunned you should meet him through your trade association.

You will find that he is just an average good fellow, the same as yourself. He may not have the same hobby as you do, but he wants to make an honest living along with the rest of us.

Very few men think they know all there is to be learned about their business. Most men in any line of business are eager to try out their ideas on the other fellow and to get his viewpoint. An idea is valuable only when it is given a chance for expression. The logical place for the expression of an idea is where it will receive the most attention from those competent to judge of its merits.

Answers to problems come only through concentration on the cause underlying the effect. The placing of the problem before many minds increases the chances of receiving the correct answer. Business problems are inherent to any business and trade associations are the logical place for these problems to be solved.

The saying that there is nothing new under the sun applies particularly to business. A problem that is a new experience to one man has undoubtedly been met and solved by some one else. There is always a certain percentage of men who will attempt to belittle the good done by trade associations. Upon investigation it is usually found they derive no benefit from their membership merely because they expected too much for too little.

After placing their name on the dotted line they were content to sit back—and allow the millenium to begin. They expected the association to automatically function to its highest efficiency—without any further effort on their part.

They say a man is known by the company he keeps. Also that an association is known by the men who attend its meetings. A man who joins an association, and refuses to help shape its destiny by at least attending its meetings, should not expect to receive much in return.

Did you ever notice a woodpecker on a tin roof? He isn't doing any good—and he knows it. He just enjoys the noise. The association knocker is like a woodpecker rapping on a tin roof.

From the Chinese comes a proverb that is applicable to any of life's efforts:

"A wise man can learn from a fool—but a fool cannot learn from any one."

In the final analysis personal effort expended is the price to be paid for personal gain in knowledge. So we ask again "What are YOU doing?"

Time and Labor Savers

Slack Time Profitable

A Brooklyn contractor has found that slack time and odd hours can very profitably be spent in making standard service connection outfits so that when a job is ready no time need be lost on service.

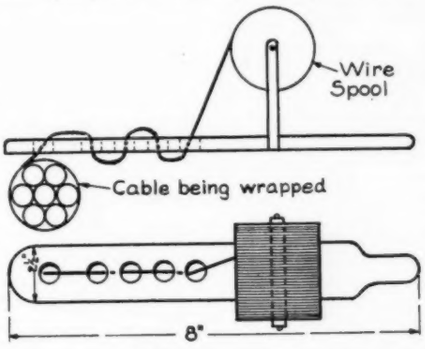
The first slack day a number of meter boards are cut to proper size and drilled, they are then dipped in a bath of good quality black paint and placed in a rack to dry. The next slack day is utilized in fastening meter switch boxes to the boards. The switch boxes are so located on the boards that a 6-in. nipple will be of sufficient length to reach between boxes where more than one meter is installed. Also all short pieces of pipe, left overs, instead of being thrown away on the job are returned to the shop where they are cut into 6-in. nipples and provided with lock nuts and bushings for future use between boxes. These nipples of course being of different diameters, the larger ones are used on jobs where a number of meters are to be installed and a number of wires pass between adjacent meters.

The most important feature of this method is that the various operations are done on slack days or odd hours, also the installation cost on the jobs is practically cut in half by reason of the quantity production method in the shop, the installation of a ten meter job becomes as simple as a one meter job and, last but not least by any means, is the utilization of left over materials which amounts to a nice little sum in the course of a year. In fact, the contractor in question claims that the operation as a whole paid for his telephone service and his compensation insurance last year.

Marlin Reel Saves Time

Two of the most important matters in connection with electrical construction are general appearance and durability. In cases where several wires are bunched together such as at a motor connection, a compensator or perhaps on the rear of a switch board, "Marlin" is generally used as it affords a very neat appearance in addition to being a durable method of supporting and protecting conductors. It requires, however, time for application as it must be wound evenly and tightly.

A simple method has been devised for this purpose and may easily be constructed at little or practically no cost and has been found to save considerable time.



Procure a piece of hard wood, say 2½ in. wide, 8 in. long and 1 in. thick, shaped as shown in the diagram. The reel may be of wood or metal and the handle which supports it may be of any size desired, depending of course on the size of cable to be wrapped, the above dimensions merely show an average size handle. Old wire spools will reduce the cost and will answer the purpose admirably.

California Merchandising Institute

(Continued from Page 17)

which it has accomplished that are not visible on the outside or to the casual observer. Central station merchandising executives have met with the committee many times as well as representatives from jobbers and manufacturers.

The problem of the selling of electrical merchandise reduces itself to one problem common to the jobber, central station and dealer. Due to the fact that the dealer makes 58 percent of the contacts with the public in electrical distribution, he is the most important of all. And, no doubt, he has in the past been the weakest link in the chain of distribution from manufacturer to consumer. Questions of price cutting, unethical merchandising practices and better business methods have all to be ironed out through the means of the Merchandising Committee. Jobbers are realizing more the problems the dealer has; the central station realizes still more the assets that a live dealer clientele can be to the selling of increased load, and it is therefore the problem of any organization of contractors, central station men, or jobbers to do everything that is possible to make the dealer more effective in his community. In order to find out just what is being done by dealers the Merchandising Committee requested from member Electragists a wattage report giving the total amount of watts sold each month, which was reported to the secretary. This in turn was given to the committee in a lump sum per month and it was interesting to note that of some 104 reports turned in during the five months of November, December, January, February and March 1,280,000 rated watts were sold in small table appliances and ranges. This represents a very few of the Electragists, but gives a few figures from which we may strike averages as to the amount of sales made by dealers.

Growing Pains

There have been many reasons advanced as to why the contractor-dealer does not sell more merchandise. And it is an acknowledged fact that the contractor-dealer is the logical outlet for such merchandise, but he has not assumed responsibility as he should and central stations have had to do the job themselves in order to get the increases in a high priced load. In trying to analyze the situation a few facts may be brought out for consideration. The electrical industry has grown so fast that "growing pains," so to speak, have overtaken it and it has not been able to cope with the situation. Where a dealer in the past received 20 percent to 25 percent he is now getting from 25 percent to 35 percent discount and sometimes a little more on some classes of merchandise. This means simply that there will be attracted a higher class of men in the field of electrical merchandise distribution.

The time is rapidly approaching when the successful electrical dealer will not only sell the wiring and fixtures, but through his contact be able to maintain the customer contact to sell all other necessities and give to a consumer that electrical service upon which any dealer business depends for profitable existence.

The Electragist

Official Journal of the
Association of Electragists—International

S. B. WILLIAMS
Editor

H. H. STINSON
Associate Editor

Growth by the Road of Cheap Wiring

"One of the principal objects that your chairman has had in view in connection with the Wiring Committee work was to take up, discuss, and encourage wiring methods which are economical, and a further thought was an endeavor to stop some of the tendencies which are growing toward the making of wiring increasingly costly. From time to time your chairman has listened to various talks, or, in trade publications, read various articles which appear to place considerable emphasis on the idea of making the cost of wiring jobs secondary to selling the consumer the idea of convenience and the necessity of adequate light and the installation of a large number of convenience outlets. . . . What we want to do is to get connected to our lines some 400,000,000 additional outlets at a minimum cost to the consumer so that he may have the convenience of these outlets for both lighting and utensils for a reasonable amount of money."

Wiring Committee Report
N. E. L. A. Convention, May, 1926.

Above is the gist of the purpose of the N. E. L. A. Wiring Committee's activity as taken from its report presented to the N. E. L. A. Convention last month in Atlantic City.

The committee does not attempt to hide its purpose—four hundred million more outlets are wanted by the power companies and they propose to get them, as they have always added to their connected residential load, by the road of cheap wiring.

Once or twice the report states that the committee does not desire "cheap" wiring, but it is somewhat difficult to make this statement ring true. The committee feels that the time is come when instead of adding refinement to wiring and so making it cost more "We must begin to take off such costs." The committee is opposed to "all-metal" because "there would be a distinct encouragement toward the increasing of the cost of electric wiring in advocating the all-metal method."

These statements are made in spite of the fact that this committee and its chairman were shown figures which prove that "all-metal" does not increase the cost of wiring. The committee did not want to be shown facts. It had made up its mind to believe what it wanted to believe.

We cannot help wondering what people would say if the oil producers were to have fought the automobile manufacturers when they first brought out closed cars "because of their expense." In another year or two the closed car will cost less than the open car. The same is true as regards "all-metal." As its use increases its cost diminishes.

But to come back to the purpose of the power companies—more outlets. Are the real thinkers in the central station industry of the opinion that cheaper materials will add outlets to their lines?

Here is electric wiring the least expensive part of the cost of a new house and the central stations want it cheapened. The public does not want cheaper wiring. The Red Seal Plan is spreading—why? Because the public wants cheaper wiring? Builders are taking hold of the Red Seal. Don't they know what appeals to the home buying public?

For years we have been fighting the curbstone contractor—the fellow who sells on price—the fellow who has about ruined the house wiring business for the better class of contractor. And now the central stations would have the cost of wiring lowered further.

The situation would be humorous if it were not for the fact that the N. E. L. A. is a powerful organization and is large and strong enough to put through pretty much any thing it pleases.

In town after town we find housewiring installed for less than $2.50 an outlet. How can this be reduced any by using less expensive materials?

If the utilities would have more outlets they need only to make the housewiring business more attractive to good contractors—men who will sell adequate jobs.

This action of the N. E. L. A. in tearing down the public good will of the contractor by saying that his prices are too high—for it virtually amounts to that—is not a friendly act. The contractor is a large contributor to the central station growth. He is always a salesman for the power company. Every job he installs sells the company's service.

The N. E. L. A. has fought so hard to build good public relations against those who would complain about the rates for energy that one wonders at the thoughtlessness that causes this attack on the rates of another branch of the industry.

This attitude on the part of the central stations has caught the attention of our friends in Canada. They have a solution which has come from experience and is given in the May 15, 1926, issue of *The Electrical News* from which we quote as follows:

"The central station companies in the United States might do worse than follow the example generally adopted in Canada. When it becomes necessary for a Canadian company to increase its load it calls to mind the law of supply and demand and makes a reduction in the rate. Consequently, the condition here is one of very low rates and

people always clamoring for more power than the companies can supply. There are places in Canada, of course, where this has been overdone and where the very low rates have resulted in the customers considering themselves as having a grievance because they cannot purchase as much power as they want to. However, these errors in judgment over the application of a sound principle do not change the principle. If United States companies want to increase their loads Canadian experience tells them that lowering the standard of wiring is not the best way to go about it."

Supervision and Higher Wages

Two years ago one city in the United States had a $1.50 an hour scale for wiremen. Today there are a number of such cities.

It is necessary, therefore, with the apparent trend of wages, for American employers to study labor costs and labor operations and find ways to keep the cost of wiring from advancing in proportion.

In the installation of electrical work higher wages should give momentum to products that tend to reduce the labor content on a job. There have been a number of such things developed in the past ten years, but more effort should be made to find out their advantage. Inexpensive tools—tools that the individual contractor will feel he can afford to buy—will have to find their way to the market.

But greater still is the need for labor management. This does not mean driving the men—it is silly to talk in these days of driving men to produce more.

No, labor management means so conducting the job that labor is not wasted. It means proper layout of work, the proper number of men on the job under competent foremen, sufficient materials and of the right kind, safety-first work, proper incentives, proper tools and enough of them, prevention of code violations, etc., etc.

When labor was getting but a fraction of a dollar an hour it might have been uneconomical to spend much money on supervision. Even now on some work supervision will be found to cost more than the saving that can be effected, but in general a closer supervision of operation will be found to yield a substantial labor economy.

Old Houses for Sale

There is a prevailing condition in the real estate market that ought to prove of advantage to electrical contractors and fixture dealers. For sale signs on old houses are growing in number while there seems to be little or no let up in new house construction.

People are buying the new houses and paying substantially more for them than they would for an old house. The reason is obvious—the public wants modern living conditions in the home.

Many of the older homes that are for sale can be made much more modern with a revamped lighting and wiring installation. Many a room can be changed from a cold, unattractive place to a comfortable, hospitable room by a better selection of lighting equipment—fixtures and portables.

How often have we heard that a fifty-dollar paint job will add a couple of hundred to the price of a second-hand car? Why not convince the owners of houses for sale that the expenditure of a small sum for refixturing will add a few hundred to the price of the place and quicken its sale?

One Job They Can't Cut

Cutting the price has been a favorite method of selling with a certain class of contractors. They trim their bid by trimming the job.

The customer always wants a good job, but if the contractor says that the addition of a few outlets and the use of a greater number of circuits does not improve the job a bit, but merely add to the price, what will the average person think?

Price competition always lowers, never raises, the standard of any profession.

Now comes the Red Seal job. It cannot be sold on price because there is a fixed minimum of outlets and circuits and the job cannot be cut. What is the result? The contractor, knowing that the price is going to be much larger than he would get or charge for an ordinary job, refuses to think of the price himself or to let his customer think of price until the job is virtually sold.

In selling Red Seal, or any other trade marked system of wiring, the contractor has but one thing to sell—quality, and that is all he tries to sell. It is not surprising then that when a contractor is through selling a quality job he finds the specifications exceed the minimum. In one city it was found that on the average the Red Seal installations exceeded the minimum by 30 percent.

The job that the customer buys depends almost entirely upon the salesmanship of the contractor. Good contractors never can compete with curbstoners on price. They can compete on quality provided they are willing to sell the customer on the idea of quality. The Red Seal Plan and other systems of trade marked wiring are ample proof of the fact that the public wants the best.

Today people in building a house want built-in bookcases, ironing boards, extra bathrooms and toilets, copper screens and gutters, etc., etc., all of which add very materially to the expense, but at the same time make the house much more livable. Why then should they change their attitude when it comes to the wiring? There is only one answer: They don't! The contractor changes it for them with the "just-as-good-at-lower-price" brand of salesmanship.

These wiring plans which are based upon quality, adequacy and livability, are bringing more of the better contractors back into the housewiring field. It is hoped that all contractors with an organization that is set up to handle small work will take up quality housewiring work. The more quality jobs that are done the more that will be done.

Association of Electragists
INTERNATIONAL

PRESIDENT, Joseph A. Fowler
118 Monroe Ave., Memphis, Tenn.

SECRETARY AND TREASURER, Laurence W. Davis,
15 West 37th Street, New York City.

EXECUTIVE COMMITTEEMEN

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70 East 45th Street.
New York City

Mountain Division
E. C. Headrick,
87 Broadway,
Denver, Colorado

Southern Division
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118 Monroe Avenue,
Memphis, Tenn.

Eastern Canadian Division
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14 No. Franklin Street,
Chicago, Ill.

Western Canadian Division
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187 Portage Avenue,
Winnipeg, Man.

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512 South West Blvd.,
Kansas City, Mo.

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Pacific Division
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687 Mission Street
San Francisco, Calif.

Union Shop Section
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21 East 40th Street
New York City

AT LARGE
G. E. Shepherd,
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Wilkes-Barre, Pa.

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U. S. Chamber of Commerce
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11 W. Market St., Wilkes-Barre, Pa.

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Charles L. Eidlitz 1901-1903
E. McCleary 1903-1905
James R. Strong 1905-1908
Gerry M. Sanborn 1908-1910
*Marshall L. Barnes 1910-1912
Ernest Freeman 1912-1914
*Deceased
John R. Galloway 1914-1916
Robley S. Stearnes 1916-1918
W. Creighton Peet 1918-1920
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Alabama:	J. R. Wilcox 2017 First Ave. Birmingham	D. B. Clayton Am. Trust Bldg., Birmingham
Arkansas:	Ed. Appler 901 Central Ave., Hot Springs	Clem Dresse 316 Louisiana St., Little Rock
California:	H. H. Walker Los Angeles	Northern Division Edward Martin 182 Fifth St., San Francisco Southern Division C. J. Geisbush 610 Cotton Exchange Bldg., Los Angeles
Colorado-Wyoming:	Matt Whitney Colorado Springs	P. Harry Byrne 965 Madison St., Denver
Florida:	Preston Ayers Orlando	Charles E. James Fort Pierce
Illinois	Joseph R. Downs 209 Federman Bldg. Peoria	L. B. Van Nuys 238 S. Jefferson Ave., Peoria
Indiana:	George H. Smith 115 S. College Ave., Bloomington	Ralph Brassie Lafayette
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Ohio:	C. L. Wells Akron	O. A. Robins 400 Arcade Bldg., Columbus
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Tennessee:	J. G. Cason 303 W. Church St. Knoxville, Tenn.	J. A. Fowler 118 Monroe Ave., Memphis
Texas:	T. L. Farmer 1809 Main St., Dallas	J. W. Read 715 Capitol Ave., Houston
Wisconsin:	L. W. Burch 202 E. Wash'n Ave., Madison	

List of Local Associations

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Birmingham (C)	J. R.Wilcox	2017 First Avenue
ARKANSAS		
Fort Smith (C)	Edward Ryan	Ft. Smith Lt. & Trac. Co.
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Los Angeles (C)	Helen I. Mikesell	1009½ S. Hill St.
Oakland (C)	Laurence R. Chilcote	Hobart & Webster Sts.
Pasadena (C)	H. W. Barnes	1331 N. Lake Ave.
Sacramento	L. W. Sherman	910 Ninth Street
San Francisco (C)	E. E. Browne	522 Call Building
Beverly Hills (C)	H. Barker	Beverly Hills
Santa Ana (C)	O. W. Robertson	303 N. Main St.
Eureka (C)	J. H. Hilfiker	1717 H Street
COLORADO		
Colorado Springs (C)	Matt Whitney	208 N. Tejon St.
Denver (C)	E. A. Scott	615 Fifteenth Street
Pueblo (C)	E. F. Stone	So. Colorado Power Co.
CONNECTICUT		
Hartford (C)	A. A. Angello	473 Park Street
Waterbury (C)	D. B. Neth	107 West Main Street
DIST. OF COLUMBIA		
Washington (L)	P. A. Davis	1328 Eye S., N. W.
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Bradentown (C)	W. S. Stewart	W. & S. Elec. Co.
Broward Co. (C)	Frank Swain	Orlando
Daytona Beach (C)	C. Leotah Benson	324½ S. Beach St.
Deland (C)	C. W. Allcorn	132 No. Florida Street
Fort Myers (C)	P. K. Weatherly	Thompson-Weatherly Elec. Co.
Indian Riv. Dist. (C)	I. O. Page	Vero Beach
Jacksonville (C)	W. H. Secrist	c/o Bay-Secrist Elec. Co.
Miami (C)	E. A. Robinson	118 N. W. First Ave.
Orlando (C)	D. E. Anderson	Ayers Electric Co.
Palm Beach (C)	James W. West	
St. Petersburg (C)	Gardiner Blackman	
Tampa (C)	P. C. Gray	Brown Electric Co.
GEORGIA		
Atlanta (C)	B. K. Laney	73 Walton St.
Savannah (L)	Sylvan M. Byck	Byck Electric Co.
ILLINOIS		
Chicago Electrical Contractors' Association	J. W. Collins	160 No. LaSalle St.
Master Elec. Contractors' Association	F. J. Boyle	175 W. Washington St.
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Peoria (C)	L. B. Van Nuys	238 So. Jefferson St.
Rockford (C)	Donald Johnson	106 North Second St.
Springfield (C)	A. D. Birnbaum	916 West Cook St.
Wheaton (C)	E. C. Krage	133 West Front St.
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Gary (C)	A. B. Harris	570 W. Washington St.
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Michigan City (C)	Walter A. Sassodeck	913 Franklin St.
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Terre Haute (C)	C. N. Chess	523 Ohio Street
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Sioux City (C)	E. A. Arzt	211 Fifth Street
Waterloo (C)	R. A. Cole	Cole Bros. Elec. Co.
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Salina (C)	Warren Hull	108 W. Walnut St.
Wichita (C)	P. W. Agrelius	Wichita
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MASSACHUSETTS		
Lowell (C)	William Kelleher	42 Middlesex St.
Haverhill (C)	H. W. Porter	14 West Street
Malden (Medford, Everett and Melrose) (C)	H. J. Walton	c-o Malden Electric Co.
Springfield (C)	A. R. Tullock	11-12 Court House Place
Worcester (L)	John W. Coghlin	259 Main Street
MICHIGAN		
Detroit (C)	N. J. Biddle	112 Madison Ave.
Grand Rapids (C)	T. J. Haven	1118 Wealthy St., S.E.
Saginaw (C)	E. T. Eastman	209 Brewers Arcade
MINNESOTA		
Duluth (L)	Morris Braden	c-o Minn. Power & Light Co.
Minneapolis (C)	W. I. Gray	209 Globe Building
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Kansas City (C)	A. S. Morgan	4 E. Forty-third St.
St. Louis Electragists' Ass'n (C)	W. F. Gersner	120 No. Second St.
Electric Employers' Association (C)	G. L. Gamp	Wainwright Bldg.

STATE AND CITY	LOCAL SECRETARY	STREET ADDRESS
NEBRASKA		
Lincoln (L)	George Ludden	1329 N Street
Omaha (C)	E. H. Brown	1818½ Harney Street
NEW JERSEY		
Long Branch (C) (Asbury Park and Red Bank)	Austin Hurley	Campbell Ave., Long Branch
Newark (C)	Paul H. Jaehnig	435 Orange Street
Paterson (C)	R. Marshall	106 Academy St.
Philipsburg (See Lehigh Valley, Pa.)		
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Brooklyn (C)	H. F. Walcott	60 Third Avenue
Jamestown (C)	Henry M. Lund	309 Main Street
Nassau-Suffolk (C)	Henry T. Hobby	55 Front Street, Rockville Centre, L. I.
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Independent (C)	Albert A. A. Tuna	127 East 34th Street
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Niagara Falls (C)	E. M. King	515 Niagara Street
Rochester (C)	Theo. T. Benz	278 State Street
Schenectady (C)	Richard Spengler	421 McClellan Street
Syracuse (C)	Fred P. Edinger	802 East Water St.
Utica (C)	W. C. Ballda	228 Genesee Street
Westchester Co. (C)	Jack Lalley	14 Mnr. Hse. Sq., Yonkers
Yonkers (C)	Louis Mayer	485 South Broadway
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Canton (C)	H. S. Hastings	301 New Vickery Bldg.
Cleveland (C)	D. S. Hunter	Bulkley Bldg.
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Dayton (C)	Clarence Carey	1107 South Brown St.
Marion (C)	O. H. Cornwell	461 W. Center Street
Massilon (C)	F. D. Mossop	c-o Mesco Electric Co.
OKLAHOMA		
Pawhuska	C. G. Sego	Pawhuska
PENNSYLVANIA		
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Allegheny Valley	E. G. Jackson	12 West Third Street
Chester (C)	W. H. McMillan	12 E. Long Avenue
Du Bois (C)	C. E Blakeslee	11th and French Sts.
Erie (C)	R. D. Goff	
Harrisburg (C)	W. W. Weaver	1605 N. 3rd Street
Lehigh Valley (C)	A. W. Hill	Main and Market Sts., Bethlehem
Philadelphia (C)	M. G. Sellers	1202 Locust Street
Pittsburgh (C)	Fred Rebele	1404 Commonwealth Bld.
Wilkes-Barre (L)	Ambrose Saricks	25 No. Main Street
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Providence (C)	H. E. Batman	36 Exchange Place
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Charleston (L)	J. P. Connolly	141 Meeting Street
SOUTH DAKOTA		
Sioux Falls	H. W. Claus	326 S. Phillips Ave.
TENNESSEE		
Chattanooga (L)	P. W. Curtis	725 Walnut Street
Knoxville (L)	Jerry G. Cason	303 West Church St.
Memphis (L)	J. J. Brennan	12-16 So. Second St.
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Houston (C)	J. W. Read	715 Capitol Avenue
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Ogden	B. Kristofferson	2249 Washington Ave.
Salt Lake City (C)	C. Louis Collins	215 Kearns Bldg.
VIRGINIA		
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Norfolk (L)	A. W. Cornick	200 Plum St.
Richmond (C)	E. M. Andrews	15 N. 12th Street
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Wheeling	Peter J. Erb	1414 Eoff St.
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Green Bay (C)	V. E. Grebel	531 S. Broadway
Madison (C)	Otto Harloff	602 State Street
Milwaukee (C)	R. H. Grobe	1604 Wells Street
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Montreal (C)	George C. L. Brassart	674 Girouard Ave.
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Vancouver (C)	J. C. Reston	579 Howe St.
Winnipeg (C)	Fred Ball	300 Princess St.

(C) designates exclusively Contractor-Dealer organization.
(L) designates an Electrical League

MAY ACTIVITIES

Fixture Manufacturers to Develop Market by Co-operative Advertising

New Program Provides for Publicity in National and Trade Press, Direct Mail, Furnishing Speakers for Civic Organizations, a Yearly National Exposition, and a Drive for Refixturing Business

A CONSIDERABLE expansion in the activities of the National Council of Lighting Fixture Manufacturers is promised as the result of a meeting of the executive committee of the Council, held at Cleveland during the latter part of April. The plan to develop the lighting fixture market was embodied in a report and trade survey of the lighting fixture industry submitted by Granville P. Rogers.

Mr. Rogers outlined conditions in the industry and suggested a plan for enlarging the council's activities in order to:

1. Broaden the market for the sale of chandeliers, floor and table lamps and all artistic and decorative lighting equipment.

2. To unify the lighting fixture manufacturers and allied industries and remedy some of the evils in the business and set up a code of ethics and fair trade practices.

3. To regulate and expand the future activities of the council.

The entire plan as approved by the council embraces an extensive co-operative advertising and merchandising campaign, using space in general magazines, trade publications and newspapers and also employing direct-mail circularizing, in order to reach and appeal to the home-owner, lighting fixture dealer, electrical contractor, jobber, architect and builder. One of the particular focal points of the drive will be to foster and encourage the replacement of old fixtures with modern equipment.

Lectures on artistic and decorative lighting will be given before Women's Clubs, Courses in Home Economics in Schools and Colleges and other interested organizations.

The advertising and merchandising program will be tied up to the dealer trade by means of store advertising, displays, etc.

Under the new plan of organization the National Council will change its name and be known as "Association for Artistic Decorative Lighting Equipment."

It is the intention of the association to supplement its publicity by establishing a yearly national exhibition to be known as the National Exhibition of the Association for Artistic Decorative Lighting Equipment. Cleveland, Ohio, was selected as the place for the next exhibition which will be held the latter part of January or the first part of February next.

The entire plan will be presented to the industry at the next convention of the association which will be held in Chicago during June at some suburban resort.

G. P. Rogers was permanently engaged as managing director of the association and the entire plan of operation will be under his direction. H. B. Garrett who has been connected with the work for a number of years was appointed assistant to managing director.

Two New Electragist Organizations in Pennsylvania

Two new local organizations of Electragists are now functioning in Pennsylvania, following meetings held at Altoona on May 6 and at New Kensington on May 7. The meeting at Altoona concentrated principally on the matter of proper management of an electrical contracting business, the subjects of estimating, accounting, proper allocation of overhead, etc., being explained by Arthur P. Peterson, field representative of the A. E. I.

Officers elected for the remainder of the year are: W. P. Neff, president; J. E. Spence, vice president; Walter Bracken, secretary and J. Guy Schaeffer, treasurer.

The meeting at New Kensington brought about the formation of the Allegheny Valley Association of Electragists, which will include members in a number of towns in the vicinity of New Kensington. A temporary organization was effected with J. E. Mesta, New Kensington, as chairman and Ellis G. Jackson, Leechburg, as secretary. A second meeting was planned for May 18 at Kittaning, at which time a permanent organization was to be effected and a program of activity laid down.

New York Association to Meet at Schenectady

What promises to be the most interesting and best attended meeting of the New York State Association of Electrical Contractors and Dealers ever held is scheduled to take place on June 14-15 at the Van Curler Hotel, Schenectady.

The program arranged includes discussion of the Red Seal plan and of the subject of state inspection, as well as of a number of other subjects of current importance. The order of business for the meeting is announced tentatively as follows:

Monday, June 14—9:00 A. M.—Registration at Hotel Van Curler, Schenectady, N. Y.; 10:00 A. M.—Executive Committee meeting; 12:00 M.—Group luncheon at Hotel Van Curler; 2:00 P. M.—Address of welcome by Mayor Alexander T. Blessing. Short business session and the following speakers:

Laurence W. Davis, Joseph C. Forsyth, O. H. Caldwell, Stanley A. Dennis.

7:30 P. M.—Dinner and dance at the Hotel Van Curler.

Tuesday, June 15—10:00 A. M.—Business session. Election of officers; 12:00 M.—Adjournment; 1:00 P. M.—Luncheon at General Electric Works; 2:00 P. M.—Trip through the General Electric Works.

The principal and most interesting part of the entertainment planned centers around the tour through the plant of the General Electric Company and the visit to the electrical exposition which is to be held in Schenectady during the time that the contractors are meeting there.

New York State to Have Uniform Inspection

A long step forward in the cause of harmonizing inspection methods and practices has been taken in New York State recently by the organization of a Joint Conference Committee of the three Underwriters' inspection departments of the state.

Previously there have been a number of complaints by electrical contractors that wiring methods allowed in one department were not permitted in another and that applications of rules differed in specific cases in the various jurisdictions. Through the efforts of J. C. Forsyth, supervising engineer of the New York Board of Fire Underwriters, and a committee of the New York State Association of Electrical Contractors and Dealers a Joint Conference Committee of the Underwriters departments was proposed and its set-up agreed upon.

Mr. Forsyth is chairman of the committee, the other members of which are W. W. Vaughn of the Syracuse department, and E. F. Hotte of the Buffalo department. The committee will be conducted along the lines of the present joint conference board of the New York City department and the New York City municipal inspection authorities. This board meets weekly to talk over any appeals from rulings that have come in since its previous meeting. Like this New York board, the Joint Conference Committee will have no authority, but will act merely in an advisory capacity.

Cincinnati Contractors' School Arousing National Interest

Inquiries from all parts of the country are being received almost daily by the Cincinnati Electric Club for information concerning the plan of conducting the Electrical Contractors School.

The school, which is being conducted under the auspices of the Cincinnati Electric Club and the University of Cincinnati, and which had its first session on Monday, March 22, continues to attract the attention of the Cincinnati contractor who is eager to obtain the training afforded by this progressive movement.

The facilities for conducting the school are limited to sixty members, and, due to the fact that several weeks prior to the opening session the capacity enrollment had been received, many disappointments have resulted to tardy applicants.

A striking example of the benefits derived from this type of educational work was manifested at a recent meeting of the class. Blue prints of a dwelling on which the work had actually been completed were submitted to the members of the class for them to make their bid. The actual cost of doing the work, including labor, material, overhead and profit, amounted to $198.50, and the average of all the bids turned in by the class was $197.25.

Following the completion of the spring course which will end May 24, a short summer course, beginning June 7 and consisting of four sessions, will be conducted.

One session will be devoted to each of the following topics:

1. Fundamentals of Artificial Illumination.
2. Residential Illumination.
3. Commercial Illumination.
4. Industrial Illumination.

Lehigh Valley Contractors Praise Central Station

The fine co-operation of the Pennsylvania Edison Company with the electrical contractors in its territory has been recognized by a vote of appreciation tendered the company by the Lehigh Valley Electrical Association.

The work of the central station has centered around an old-house wiring campaign. The company listed all unwired houses systematically, conducting a house-to-house canvass to obtain exact data, together with names of all prospects. While this was going on the company held an electrical show which stressed the house wiring campaign.

Unwired homes to the number of 3,900 were listed and the company solicited each one of these, obtaining a total of 1,650 contracts, a net return of about 42 percent. These contracts represented wiring and fixture business to the electrical contractors totaling $160,000, of which $135,000 was obtained on a cash basis. This business was turned over to the contractors in the vicinity without any cost to them.

Majority Rules for Non-Metallic Sheathed Cable Installations Pass N. F. P. A.

Rules Proposed by Electrical Committee's Vote of 26 to 13 Go Over at Fire Prevention Gathering After Long Discussion—Now Ready for A. E. S. C. Action

THE rules proposed by the majority of the Electrical Committee, N. F. P. A., for the installation of non-metallic sheathed cable were accorded the approval of the National Fire Prevention Association at its annual meeting in Atlantic City, May 10-14. Consideration of the subject was reached at 10:15 a. m. on May 13 and the discussion lasted for over an hour and a half with the final vote taken just before noon, the matter thus occupying considerably more time than had been allotted to it and arousing quite as much discussion, pro and con, as had been expected.

The recommended changes in the National Electrical Code were presented to the meeting by A. R. Small, chairman of the committee, who also made a brief statement calling attention to the divided opinion of the committee on the subject of non-metallic sheathed cables. Following this, Ralph Sweetman, New England Insurance Exchange, proposed a substitute motion to that of Chairman Small, calling for the deletion of Section 507 covering non-metallic sheathed cable from the recommended changes in the Code. This was seconded.

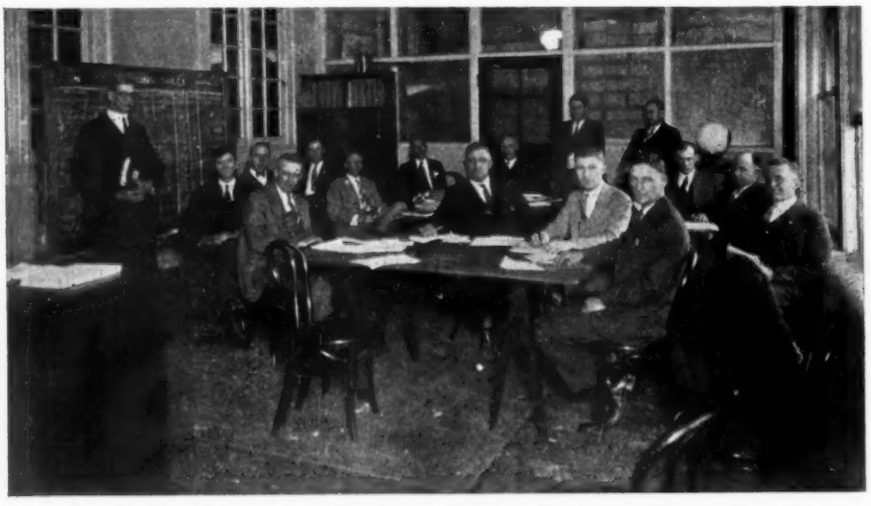
This resolution was defeated after many delegates had stated their views for and against the recommended change and the meeting returned to the consideration of the original resolution. The vote of the convention was taken on the recommended changes as a whole and the report of the Electrical Committee was adopted. The changes will now go to the American Engineering Standards Committee for ratification as an American standard.

Attendance at the convention numbered approximately four hundred. Officers elected for the coming year were: Dana Pierce, Underwriters' Laboratories, president; A. M. Schoen, Southeastern Underwriters' Association, first vice president; Frank P. Jordan, Indianapolis Water Works, second vice president; N. H. Wentworth, secretary-treasurer, and A. T. Bell, Leeds-Lippincott Co., chairman, executive committee.

A. E. I. Estimating Course at Charlotte, N. C.

Course Attended by Eighteen Contractors from Four Different Cities—Special Attention Paid to Wiring in Cotton Mills, an Important Source of Revenue in this District

INTELLIGENT competition based on standardized systematic methods of estimating is a constructive force, making for higher efficiency in business management, better installations and better service to the customer. Competition based on haphazard unsystematic estimating is highly destructive and produces the opposite results.



The Carolina Contractors Who Attended the Estimating Course at Charlotte

Realizing the advantages to be gained through the standardization of estimating methods, R. H. Bouligny, president of the North Carolina State Association, and R. W. Robinson, acting as chairman of a local committee on arrangements, organized a class in estimating which met in Charlotte on April 26.

The course of study was attended by eighteen men, one half this number being from Charlotte while six came from Asheville, two from Shelby and one from Lenoir. The course was conducted by Arthur L. Abbott, Technical Director of the Association of Electragists, International. Mr. Abbott was assisted by Arthur P. Peterson, Field Representative of the association.

This course, as now standardized by the A. E. I., requires ten two-hour periods. Six periods are devoted to the larger class of conduit jobs and industrial plant work, and four periods to house wiring and other classes of small work.

It often happens that some special class of work which is common in a particular section of the country gives rise to some unusual problems in estimating. Thus the wiring practice in the cotton mills in the South makes these jobs almost in a class by themselves. In order to work out any special estimating methods and data which might be required for this work, Mr. Abbott spent a week in Charlotte before the estimating course was started and made a careful study of cotton mill installations and labor cost records. During this time a study was also made of local practice in house wiring and the corresponding local costs.

The contractors attending the classes expressed themselves as well satisfied and it is confidently expected that this group of men will exert a strong influence for the general adoption of better methods of estimating in their state.

Brooklyn Contractors to Exchange Credit Information

A movement to protect themselves against dishonest speculative builders was set on foot during April by the Brooklyn Group of Electrical Contractors of the New York Electrical Board of Trade. During the last few years when speculative building of lofts, apartment and office structures has been very heavy, a certain number of "gyp" promoters are said to have caused fairly severe losses to electrical contractors in the Borough of Brooklyn through clever manipulation of holding companies, second mortgages on buildings under construction, etc. Hereafter the Brooklyn contractors belonging to the Board of Trade will meet periodically to exchange credit "experiences" and thus protect fellow contractors against builders who deliberately set out to cheat their creditors.

Kingston (N. Y.) Passes Licensing Law

All master electricians doing wiring in the city of Kingston, N. Y., now have to file a $500 indemnity bond, pass an examination and pay a $10 license fee. This is provided for in an amendment to a city ordinance, passed by the Board of Fire Commissioners of the city on April 13. The Board of Examiners, which will pass on the qualifications of electricians applying for license, will be composed of the chief of the Fire Department and two members appointed by the president of the Fire Commissioners.

Commercial Attorney Engaged By St. Louis Contractors

Hereafter the delinquent collections of St. Louis electrical contractors and dealers will be handled by a commercial attorney, according to the plan recently announced by the St. Louis Electrical Board of Trade, instead of by an agency handling general collections. According to Carl H. Christine, secretary-manager of the organization, it is believed that a trained attorney specializing in the electrical industry would soon become more proficient than could any agency handling all sorts of business.

Mr. Christine has issued to THE ELECTRAGIST the following statement concerning this new policy:

"The smaller electrical contractors in St. Louis need assistance if they are to improve their own conditions, thereby creating a healthier condition in the electrical industry in St. Louis. All of them have secured licenses on the basis of their knowledge of electrical work. Many of them have not acquired the fundamentals of salesmanship or credits, two vital factors in the success of any business.

"Believing it to be the function of this organization to at least make an effort to give them an opportunity to acquire the fundamentals in these two branches of the business, we have secured well qualified speakers on these subjects at evening meetings of the contractors section. This naturally is assistance in the abstract.

"We have obtained also the services of O. M. Charleville, an attorney well equipped to handle this work, believing that a trained energetic attorney specializing in the electrical industry would soon become more proficient than could any agency handling general collections.

"It is thought that the concentration of his efforts on commercial legal matters of the electrical industry, and the special and individual attention given to such matters, would in a brief period demonstrate the efficiency of such a department with the result that it would not only be self-sustaining but would produce a balance which would enable us to reduce the cost of this work to members.

"In the beginning, accounts will be handled at customary fees. The attorney will receive these fees up to a certain amount. All fees over and above this amount will be expended at the discretion of the executive committee, which committee has indicated that a portion if not all of such balance will be refunded to the members using the service."

Daytona Beach Electragists Doing Good Work

One of the most active local associations in the South is the Daytona Beach Association of Electragists, which, though organized only a few months ago, has already made its presence felt in civic affairs. The association maintains an office in the Builders' Exchange which is in charge of a paid secretary, C. Leotah Benson.

Recently the association took three booths in the Daytona Beach Build, Buy and Beautify Exhibit and during the exhibit staged a popularity contest to elect "Queen Electra, Queen of Light." One hundred votes were given on every dollar purchase of electrical merchandise and on every dollar paid on bills or contracts to any of the members. The winner was given a boudoir set of electrical necessities, which had been on display during the show.

Seiler Resigns as K. C. Inspector

Frank J. Seiler, who won the entire confidence of the electrical industry in Kansas City, Mo., while serving that municipality as head of the inspection department, has announced his resignation. He will hereafter be connected with the Frank Adam Electric Company as factory representative at large and will make his headquarters at the Kansas City office of the company.

Wheeling Contractors Adopt Electragist Name

At a meeting of the electrical contractors and dealers association of Wheeling, W. Va., held on May 10, it was voted that the association should affiliate with the A. E. I. as a body and that hereafter the name of the local organization would be the Associated Electragists of Greater Wheeling.

The speaker of the evening was Arthur P. Peterson, field representative of the A. E. I., who gave a talk on overhead and outlined a number of ways in which the association could be of service to the industry and the public. The association has already secured the passage of a wiring ordinance and plans to adopt a program consisting of studies and discussion on overhead, housewiring, etc.

Officers of the association are: R. I. McKelvey, president, and Peter J. Erb, secretary-treasurer.

Camp Co-operation Details Announced

The organization details of Camp Co-operation VI are well under way, according to the announcement of the Society for Electrical Development.

The leagues have been notified and quite a number have already made reservations for the meeting, which will be from September 1 to 4. Attendance at this conference is by invitation extended by the board of directors of the Society and present indications are that this will be the most successful meeting yet held.

The business program is being prepared by F. M. Feiker, operating vice president of the society, and Kenneth A. McIntyre, in charge of league work.

Extensive Program Decided Upon at First Regular Meeting of New Maryland Association

Activities to Include Setting-Up of "Milwaukee Plan" of Accounting for Contractors, Estimating Section, Pushing of A. E. I. Trade Policy and Selling Electrical Idea to Public

AN AMBITIOUS schedule of activities has been laid out for the Maryland Association of Electragists, which perfected its organization at a meeting held in Baltimore on May 13. One of the most important features of the program is the providing for electrical contractors of an accounting lay-out similar to the system now in operation in Milwaukee.

This new State Association of Electragists provides a common meeting ground for the International members in Maryland, membership being limited to members of the A. E. I.

Regular meetings will be held four times a year with special meetings subject to call.

One of the first moves of the Maryland Electragists was the appointment of a Committee on Accounting. This committee will arrange for talks on accounting by competent speakers and hopes before long to have an accountant available to members through the co-operation of local jobbers working along the "Milwaukee Plan." This plan was explained by a representative of the A. E. I.

Another important feature will be the establishing of an Estimating Club which will meet regularly for the sole purpose of increasing estimating efficiency. A systematic study of the Manuals of Estimating of the A. E. I. will form the basis of this club's work.

While Maryland has a State Examining Board for Electrical Contractors the only city coming under the jurisdiction of the board is Baltimore. In order that the rest of the state may enjoy this protection efforts will be made to make the statutes apply to the entire state in this respect.

Realizing the need for economic distribution, the association hopes to have

put in effect the plan of the Trade Policy Committee of the A. E. I. and to promote this activity a committee has been appointed.

Other committees to be appointed are those on development, which will have charge of selling the electrical idea to the public, architects and engineers, motor repair, business conduct, merchandising, legislative, code and entertainment.

The appointment of all committees rests with the executive committee, which has the right to discharge any committee when it finds such group no longer useful. All Maryland committees will begin functioning independently at once and will report in writing to the executive committee once a month. Recommendations of committees can be acted upon directly by the governing body without recourse to the whole association, but all matters of general interest which should have the consideration of the entire group will come before the members at a special or regular meeting and will be acted upon there.

Officers elected for the coming year are: W. C. Brueckmann, president; F. C. Cleggett, vice president; W. D. Young, secretary, and John S. Dobler, treasurer.

New Electragists

The following contractor-dealers have made application for membership and been accepted into the A. E. I. since the publication of the last list in the May issue:

CALIFORNIA

Paso Robles:
Paso Robles Elec. Shop

San Luis Obispo:
Cline's Elec. Shop

Santa Maria:
The Electric Shop

FLORIDA

Dania:
Service Elec. Co.

Sarasota:
J. J. Murphy & Co.

Sebring:
Sebring Elec. Co.

Tampa:
Daniel Boone Elec. Co.
West Tampa Elec. Co.

West Palm Beach:
La Valla & Halpin

INDIANA

East Chicago:
Indiana Elec. Service Co.

Evansville:
Crescent City Elec. Div., Lake States General Elec. Sup. Co., Inc.

Gary:
Blaner Elec. Co.
Gary Elec. Co.
Meyer Light Co.
Ridge Road Elec. Co.
Schreiber-Yeager Elec. Co.
South Side Elec. Co.

Hammond:
Electrical Contracting & Sup. Co.
General Engrg. & Sales Co.
Juergens Electric
Modern Elec. Service Co.
Tri-City Elec. Service Co.

Indiana Harbor (Lake County):
C. W. Yeager Elec. Co.

Whiting:
Lake Elec. Sup. Co.
Seliger Elec. Co.

MARYLAND

Baltimore:
Geo. A. Baskin
Joseph A. Becker
Enterprise Elec. Co., Inc.
A. Hurwitz
Charles A. Russell
Allen N. Walpert
Henry O. Winter

MICHIGAN

Detroit:
Brose Elec. Shop
Herbert Einboden
Enterprise Elec. Co.
Esser Bros.
William A. Flett
Greenfield Elec. Co.
John H. Heberling
Liberty Elec. Co.
Claude & C. A. McCammon
William A. Priem
George E. Scanlan
Southeastern Elec. Co., Inc.
Joseph W. Tampir
A. Warring Elec. Co.
Edward H. Williams
Knowlson Division, Lake States General Elec. Sup. Co., Inc.

NEW JERSEY

Newark:
The Kern Elec. & Engrg. Co., Inc.

NEW YORK

North Tonawanda:
Belling Electric Service

NORTH CAROLINA

Asheville:
Haynes Elec. Co.
Ward Elec. Co.

Charlotte:
Acme Plbg. & Elec. Co.
Charlotte Elec. Repair Co.

Raleigh:
Summers Electrical Co.

OHIO

Cincinnati:
Post-Glover Div., Lake States General Elec. Sup. Co., Inc.

Cleveland:
Republic Elec. Div., Lake States General Elec. Sup. Co., Inc.

Columbus:
Erner & Hopkins Div., Lake States General Elec. Sup. Co., Inc.

Toledo:
W. G. Nagel Sup. Div., Lake States General Elec. Sup. Co., Inc.

PENNSYLVANIA

Altoona:
Stiffler Elec. Co.
Victoria Elec. Co.

Mohrsville:
Paul J. Gernert

Norristown:
William S. Musselman

Oxford:
Earnhart Bros.

Philadelphia:
United Elec. Const. Co., Inc.

Pittsburgh:
Ross-Shenk Elec. Co.

Reading:
The Electric Shop—Raser & Co.
Walter E. Payne

SOUTH CAROLINA

Gaffney:
Gaffney Elec. Co.

Greenville:
Morgan-Barr Elec. Co.

TENNESSEE

Johnson City:
Arcade Elec. Co.
The Electrical Sup. Co.

UTAH

Brigham City:
W. R. Mehner, Electrical Contractor

VIRGINIA

Roanoke:
Jefferson Elec. Co., Inc.

WEST VIRGINIA

Wheeling:
Felsing Elec. Co.

WISCONSIN

Sussex:
Erwin E. Marx

Co-operation is Feature of Atlanta Code Work

The co-operation of the Georgia Railway and Power Company and the Southeastern Underwriters' Association with the Atlanta Code Committee has been one of the outstanding features of Code activities there, according to the report of J. E. Mellett, chairman of the local Code committee.

In the past, Mr. Mellett says, the power company has had a good deal of trouble after cut-ins were made to structures outside the city limits of Atlanta, due to bad work that had never been inspected. The committee secured the assistance of R. C. Turner, Superintendent of Electrical Affairs, to get the power company to agree not to cut-in any structure unless inspected by the Southeastern Underwriters' Association. The underwriters were then induced to extend their inspections to all structures coming on the lines, whether in or out of Atlanta.

As a result the wiring done, Mr. Mellett declares, has changed for the better over night.

New York Association Plans Annual Outing

The twenty-second annual summer outing of the Independent Associated Electrical Contractor-Dealers of Greater New York will be held at the Elks' Club, Staten Island on July 17. It is expected that, as usual, it will be one of the best attended local electrical gatherings of the year, since the customary fine program of sports and entertainment will be offered.

Asheville Has Branch of Electragists

Electrical contractors of Asheville, N. C., have completed the organization of a local Association of Electragists, after a series of preliminary meetings, to determine the set-up. A permanent organization was formed at a meeting on May 12 and officers were elected as follows: George W. Webb, president; W. A. Ward, vice president; Robert U. Garrett, secretary-treasurer, and R. E. Mathews, George Pressley and H. E. Elkins, executive committeemen.

A tentative program announced at the meeting includes the giving of the A. E. I. estimating course at some future date.

OBITUARIES

S. W. Bishop

Sidney W. Bishop, executive manager of the Electrical League of Colorado, died May 13, as the result of an operation on May 4. Mr. Bishop was born November 12, 1894, in Denver and was a graduate of the University of Colorado. Following his graduation he became allied with a Denver newspaper, later leaving this work to enter the beet sugar industry.

At the beginning of the war he enlisted, was commissioned and when discharged held the rank of captain.

S. W. Bishop

Mr. Bishop joined the Denver Electrical Co-operative League immediately after its inception, in July, 1921. This league has been one of the most successful inaugurated by the industry. Chief among its accomplishments has been the display of a number of electrical homes, which undertaking was largely supervised by Mr. Bishop.

Since taking over the management of the Electrical League of Colorado Mr. Bishop had gained national repute and recognition in that he was responsible for the inauguration of innovations that have been adopted in virtually every state in the Union. Dozens of business buildings in Denver and other parts of the state and hundreds of homes, regarded as almost perfect from a lighting angle, can be credited to him.

Mr. Bishop's services have always been in demand, not only locally, but in other parts of the nation. He had to his credit the origin of lighting ideas that are being adopted in many states. He was one of the originators of the Better Christmas Lighting idea which gained Denver wide recognition and which is being adopted by many other large cities. Though frequently urged to transfer his talents to large eastern organizations, Mr. Bishop steadfastly declined to leave the Electrical League of Colorado.

Mr. Bishop, who was 32 years old, is survived by his widow and two small children.

Philip De Bree

Philip De Bree, who has been associated with the firm of L. K. Comstock & Co. since its inception, died in Chicago on April 20. Mr. De Bree was formerly superintendent for the company in Chicago and at the time of his death was in charge of the service department.

A. F. Wildberger

Albert F. Wildberger, proprietor of the Reliance Electric Company, Mount Vernon, N. Y., died on May 4 after a short illness with lockjaw. He was 32 years old and at the time of his death was serving as president of the Allied Electrical Contractors' Association of Westchester County.

News Notes Concerning Contractor-Dealers

Carl Boyes has opened an electrical store at Maryville, N. Y.

The Harper Electric Company, Orange, Calif., has been purchased by Charles L. Alt and the name will be changed to the California Electric Company.

A new electrical shop has been opened in Loup City, Kan., by Edgar Daddow.

Perry, Okla., has a new electrical store under the ownership of Paul Ryan.

E. C. Groce has established a new store for his electrical wiring business in Columbus, Ohio, and hereafter will operate under the name of the Groce Electric Company.

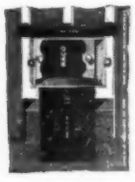
The firm of Grafton & Jewens, electrical contractors, Montgomery, N. Y., his dissolved partnership and in the future each of the partners will conduct his own business.

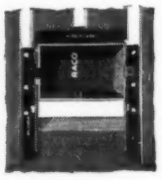
•MANUFACTURING•

A Department Devoted to the Latest Devices Used by the Electrical Contractor and Dealer

Switch Boxes

Two new switch boxes are being marketed by the Roach Appleton Manufacturing Company, Chicago, Ill., one having a mounting bracket and lath support and the other having extended ears and lath supports.





Both types nail direct to the face of the studding and are equipped with lath supports which support the cut laths, thus interlocking the device with the solid lath, making a very rigid installation. The extended ears on the latter box are attached to the body of the box with screws in closed slots, permitting adjustment for thickness of plaster and also to level up the box. The mounting bracket on the other box is both riveted and spot welded to the box and has the feature of keying the plaster by means of two protruding prongs which insure a permanent plaster key.

Both the extended ears and the mounting brackets are equipped with two pairs of pointed projections on the studding side for use in guaging, bracing and setting the boxes, and also with plenty of nail holes conveniently offset to prevent splitting the studding. Either type of box can conveniently be made up into gangs by the use of spacers.

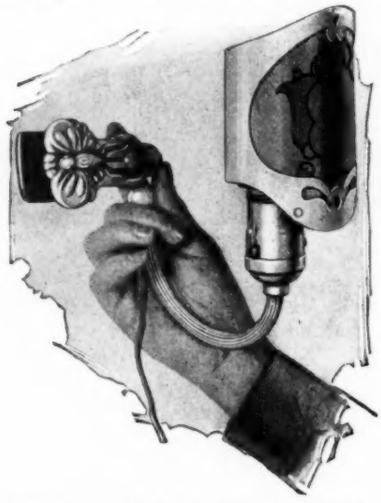
Pull Chain Pendant

Harvey Hubbell, Inc., Bridgeport, Conn., has recently put on the market a new tassel pendant for pull chain sockets. The new device is quickly and easily attached and detached. No special tool is needed for attaching and detaching. Another advantage of this pendant is the fact that there are no loose parts to get lost.

The company is now prepared to furnish pull sockets with either the tassel or acorn type of pendant.

Interchangeable Shield Shade

The F. W. Wakefield Brass Company has developed a new shield shade, consisting of an ivory finished metal frame having channels into which decorated inserts or fillers of parchment, crackle or fabric may be readily inserted and changed at will. The shield is held



firmly in position by screwing the lamp base through a fiber ring and into the lamp socket. While designed especially for use with the Wakefield "Attachette" clamping bracket here illustrated, these new shields may be used upon any fixture where this type of shade is suitable.

New Westinghouse Products

A "Sentinel Breaker," a simple device that will protect the motor and mechanism of washing machines, ironers and other electric appliances from damaging overloads, has been designed and is being manufactured by the Westinghouse Electric and Manufacturing Company.

This new breaker, which is also used as the main starting and stopping switch, protects the motor from burnouts due to overloading, by breaking the circuit before the overload can do any damage. If too great a load is applied to the motor, a thermostat, affected by the heat generated by the overload current trips the breaker and prevents serious damage. The breaker will stay out until the trouble is removed and can only be reset if the load is such that it will not damage the motor. Momentary overloads will not cause the breaker to trip.

Other new Westinghouse products include three percolators, an electric hot plate, and a table stove.

The new Westinghouse hot plate has been produced primarily for the export trade, although it will have a wide sale in this country, being priced at less than $4.00. It is 5½ inches in diameter and uses an open coil unit arranged for single heat and rated at 550 watts. The rim and legs are finished in polished nickel, while the frame is white nickel. An eight-foot cord is supplied.

The table above has been redesigned and equipped with a separate cord and plug. The legs on the stove will be of the straight type used in the waffle iron.

Socket Base and Outlet

The Arrow Electric Company, Hartford, Conn., is manufacturing a porcelain socket base with an attachment plug outlet, thus combining an outlet for light and an outlet for current in

one unit, suitable for direct mounting on a 3¼-in. box. There being only one pair of terminals it can be used on old work to replace existing outlets with the original wiring and will be found particularly convenient for kitchens, bathrooms, cellars and garages. The attachment plug outlet is independent of the socket outlet and for that reason is always alive.

X-Ray

TRADE MARK REG.

Floodlights

The No. 60 X-Ray Projector for 500-watt Mazda lamp.

Defy the Night!

The time for floodlighting is here. Every electrical man should take advantage of the golden opportunities this season affords to sell floodlighting.

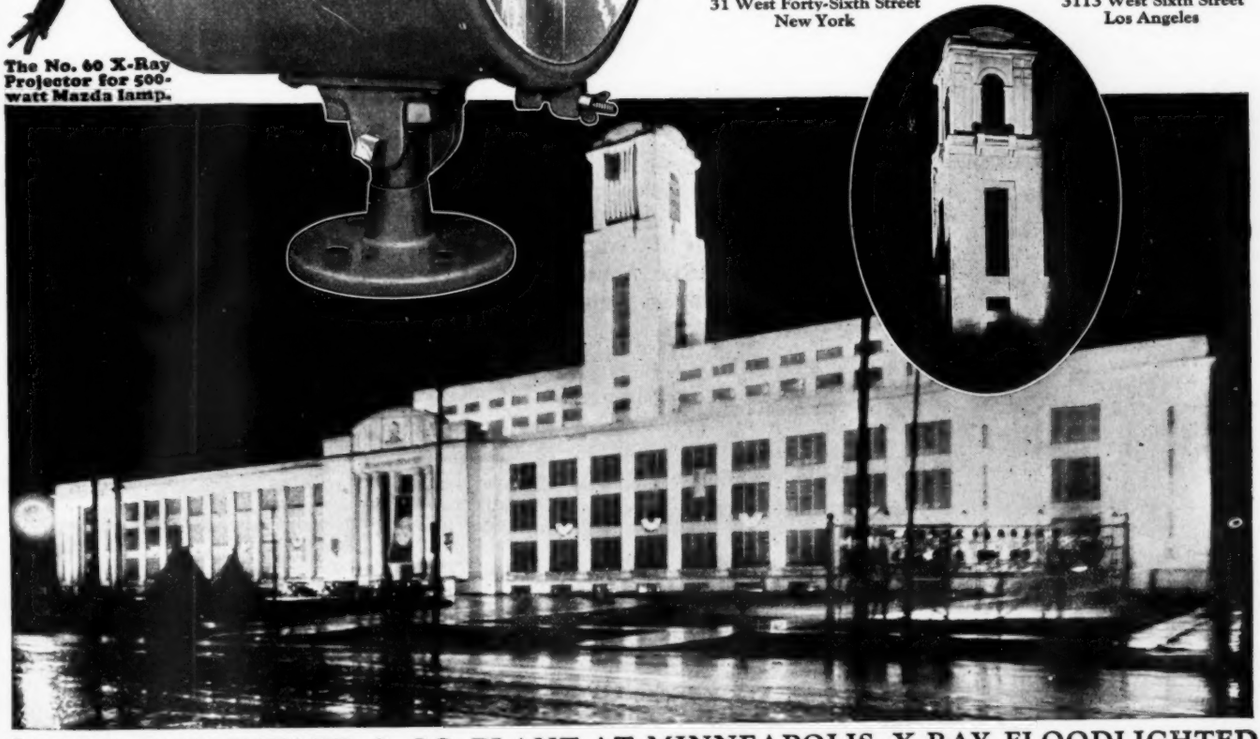
A floodlighted building is not only a splendid advertisement for the owner of the building, but for the man who installs the projectors as well.

X-Ray Projectors are used the world over. Sell them now!

CURTIS LIGHTING, Inc.
1119 West Jackson Boulevard
CHICAGO

31 West Forty-Sixth Street
New York

3113 West Sixth Street
Los Angeles

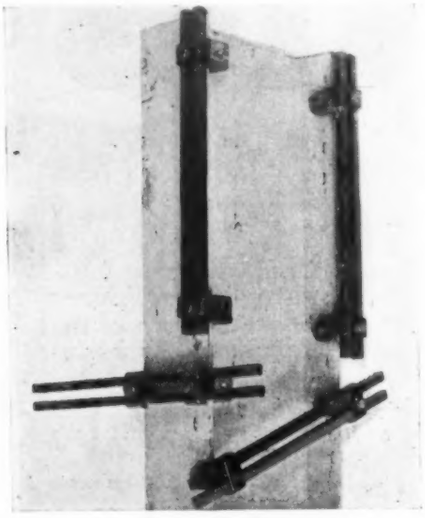


MONTGOMERY WARD & CO. PLANT AT MINNEAPOLIS, X-RAY FLOODLIGHTED

Wiring Supports

The General Electric Company has announced a new line of adjustable supports for wiring installations. These are fixtures for permanent or temporary work, which may be used on timber masonry, structural steel or pipe framework.

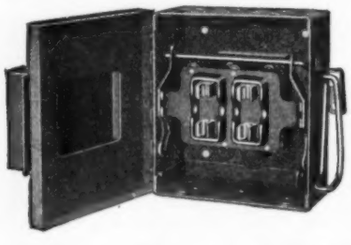
The design has been standardized as far as possible. Rods of half-inch cold rolled steel which may be cut to any length are used with two forms of supports: one the familiar wedge-shaped castings for pipe, and the other a slotted



casting to fit the edge of I-beam flanges. A clamp in the form of an elongated U (a short piece of strap iron turned up at the ends) is used to clamp the rods to the supports. This clamp is also used in clamping apparatus to the rods.

Industrial Switches

The Trumbull-Vanderpoel Electric Manufacturing Company of Bantam, Conn., has put on the market a new industrial switch designed to fill the demand for a small size medium priced



switch for general industrial work. The switches are full safety type with interlocked fuse compartment. The main cover may be opened independently of the interlock, providing for inspection without interrupting current. Ample wiring space and concentric knockouts are provided. The device is made in two, three or four-pole type, 30-amp., and 250-v. The company will also include with this line before very long similar switches designed as motor starters of the type cutting around fuses when starting.

C. & E. Safety Handles

The Ericson Manufacturing Company, Cleveland, Ohio, has placed on the market a line of C & E safety handles which reinforce the connection between the portable cord and the plug or socket and protect the cord from wear, and also safeguard the user in the event of the connection being broken.

The safety handles are made of rubber, are flexible and easily applied.

Manufacturing Notes

The American Wiremold Company, Hartford, Conn., is distributing to jobbers, contractors, central stations, electrical engineers and architects an elaborate wall chart showing its "Wiremold" conduit system and giving installation suggestions and dimensions.

Three wall charts, illustrating and also listing the standard package quantities and prices of its "500," "1000" and "5000" lines of interchangeable porcelain sockets and receptacles, have been prepared for dealers by the Circle F Manufacturing Company, Trenton, N. J.

According to the announcement of Sho-Lite, Inc., 141 Merrimac Street, Boston, the distribution of its products will hereafter be handled exclusively through authorized jobbers.

The Hilday Company, General Motors Building, Detroit, will represent the Circle F Manufacturing Company in the State of Michigan, taking the place of Stanley H. Woleben, who has retired from the manufacturers' agency business.

On May 1 the Signal Engineering and Manufacturing Company moved into new and more commodious quarters at 154 West Fourteenth Street, New York City.

The Graybar Electric Company has announced its plans to open new branches in the following cities: Reading, Pa., Dayton, Ohio, and Hartford, Conn.

The Tork Company, Inc., 12 East Forty-first Street, New York, is distributing to dealers its "Tork Pocketbook," which contains descriptions of its clocks, timers, lights and wire nuts and also lists and explains the various uses of its time control apparatus.

New appointments of the Westinghouse Electric and Manufacturing Company include the promotion of J. McA. Duncan, formerly Pittsburgh district manager, to the post of assistant general sales manager and that of F. H. Robb to the position of New England service sales division manager.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, of "THE ELECTRAGIST," published monthly at Utica, N. Y., for April 1, 1926:

State of New York, }
County of New York, } ss.:

Before me, a Notary Public in and for the State and County aforesaid, personally appeared S. B. Williams, who having been duly sworn according to law, deposes and says that he is the Editor of "THE ELECTRAGIST," and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the name and addresses of the publisher, editor, managing editor, and business manager are:

Publisher, Association of Electragists—International, 15 W. 37th Street, New York, N. Y.
Editor, S. B. Williams, 15 W. 37th Street, New York, N. Y.
Managing Editor, none.
Business Manager, Laurence W. Davis, 15 W. 37th Street, New York, N. Y.

2. That the owner is:

Association of Electragists—International. Not incorporated. Composed of 2,000 members, of which principal officers are:

Joseph A. Fowler, President, 118 Monroe Ave., Memphis, Tenn.
Laurence W. Davis, Secretary-Treasurer, 15 W. 37th Street, New York, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent. or more of total amount of bonds, mortgages, or other securities are none.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the Company, but also, in cases where the stockholder or security holder appears upon the books of the Company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the sad stock, bonds, or other securities than as so stated by him.

(Signature of) S. B. WILLIAMS,
Editor.

Sworn to and subscribed before me this 19th day of March, 1926.

MAY E. CASLIN.
(My commission expires March 30, 1928).